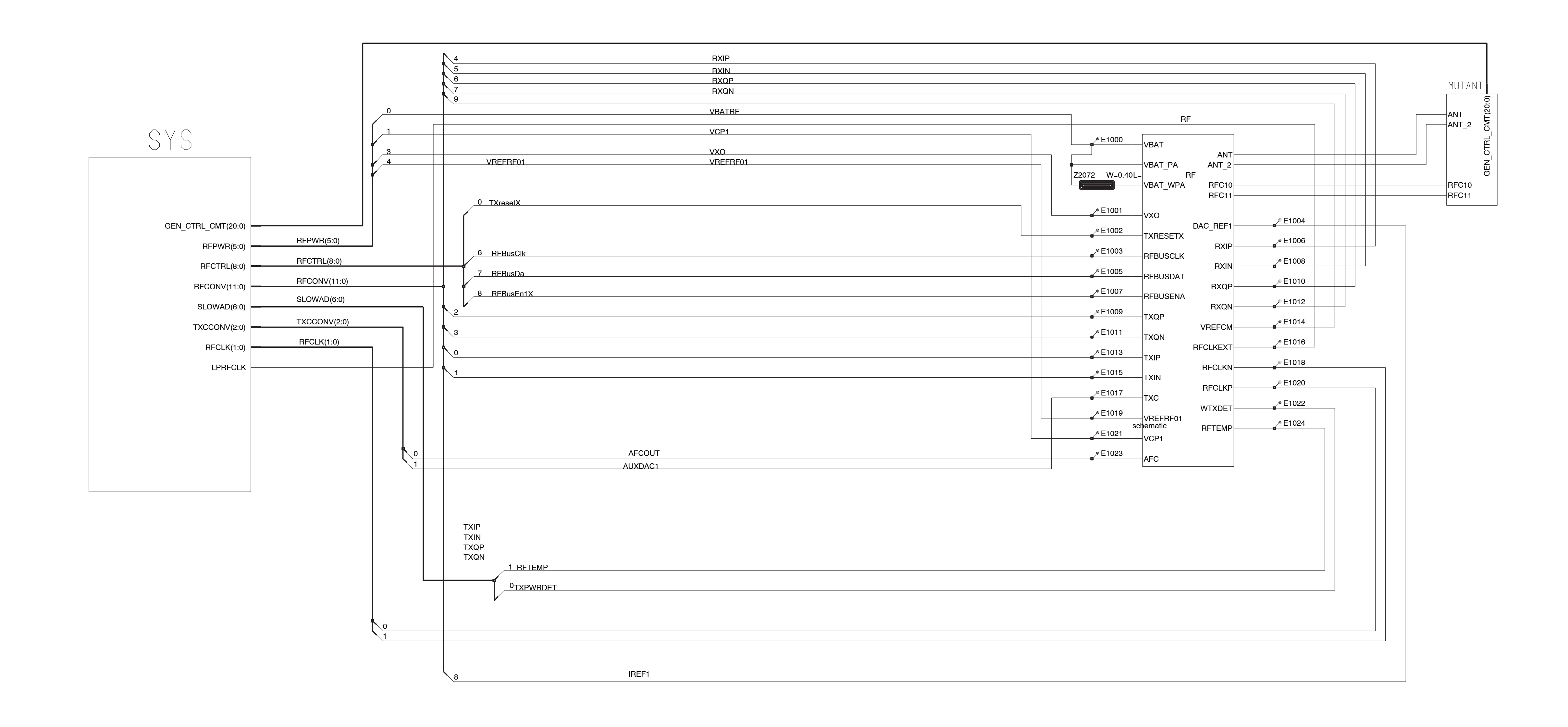
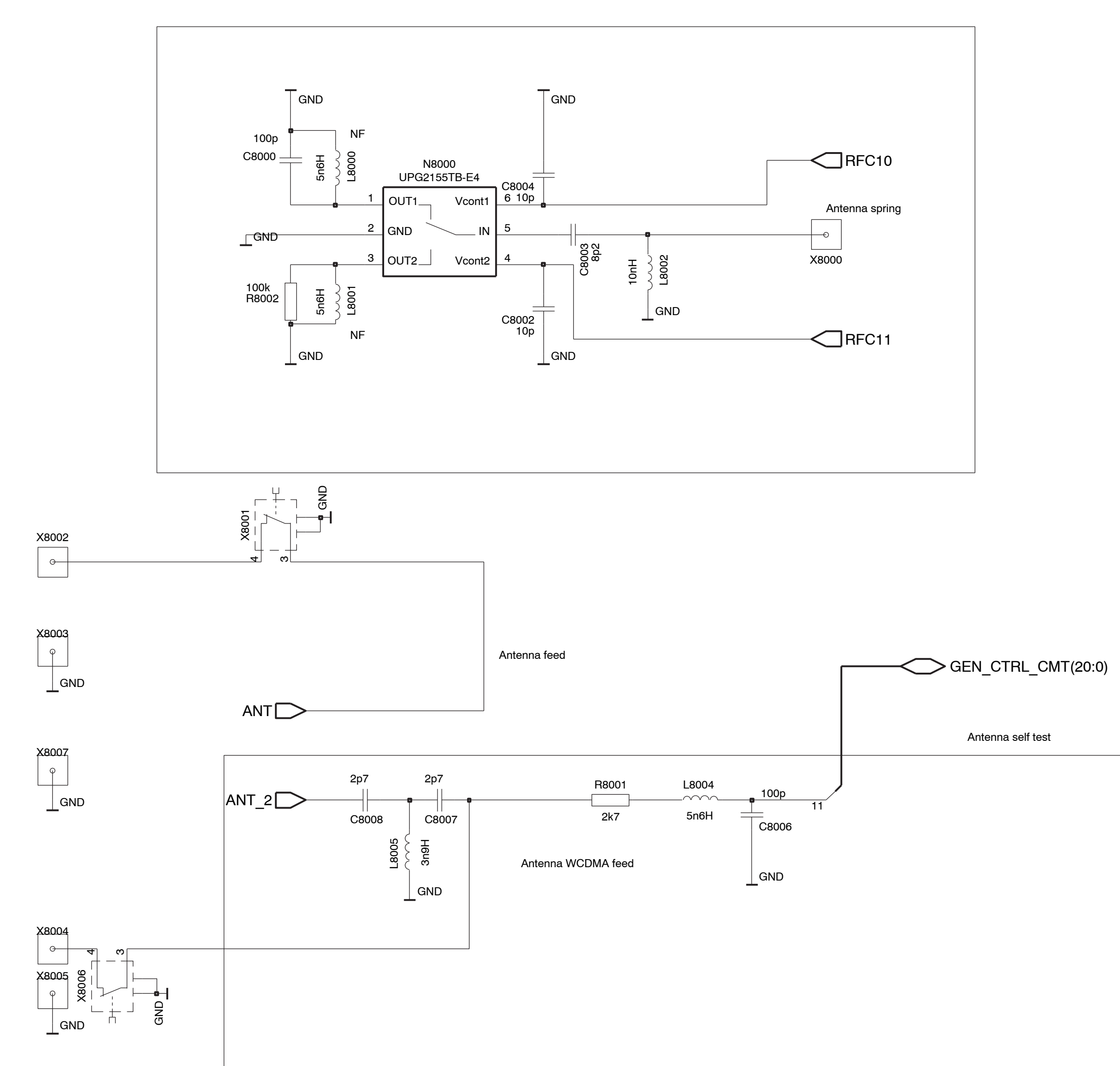


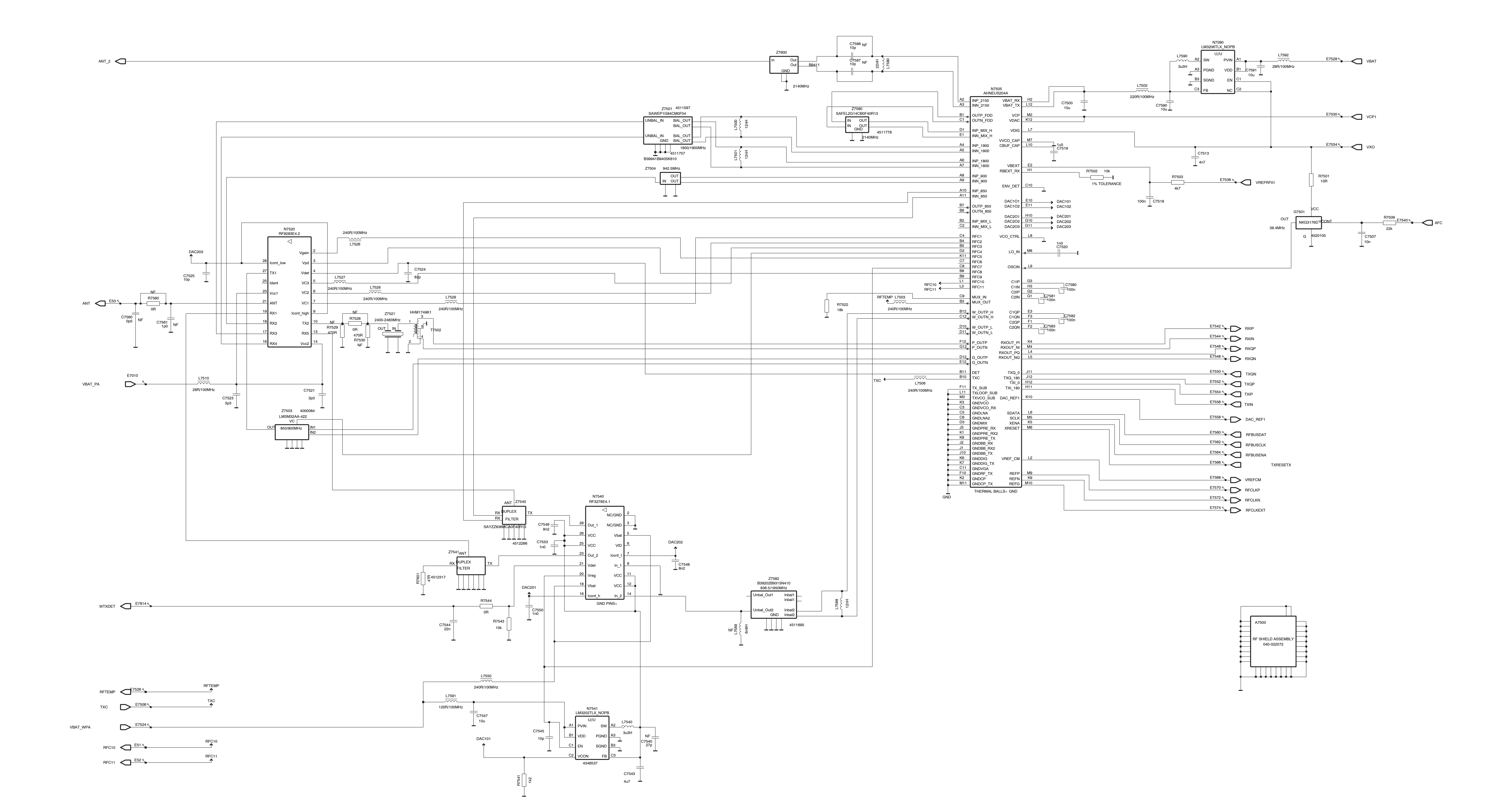
CMT SHEET NAME	REF AREA
/sys/cmt_if/prod_test_pattern	2060-2069
/sys/cmt_if/battery_conn	2070-2099
/sys/cmt_if/audio	2000-2029
/sys/cmt_if/audio	2100-2199
/sys/cmt_if/itu	2400-2499
/sys/cmt_if/camera	2500-2599
/sys/cmt_if/sim	2700-2799
/sys/cmt_if/emu_rap	3100-3120
/sys/cmt_if/wing	4000-4099
/sys/cmt_if/lid	3800-3899
/sys/cmt_if/bt	6000-6099
/sys/cmt_if/wlan	6300-6510
/sys/cmt_if/conn/charger-USB	2030-2039

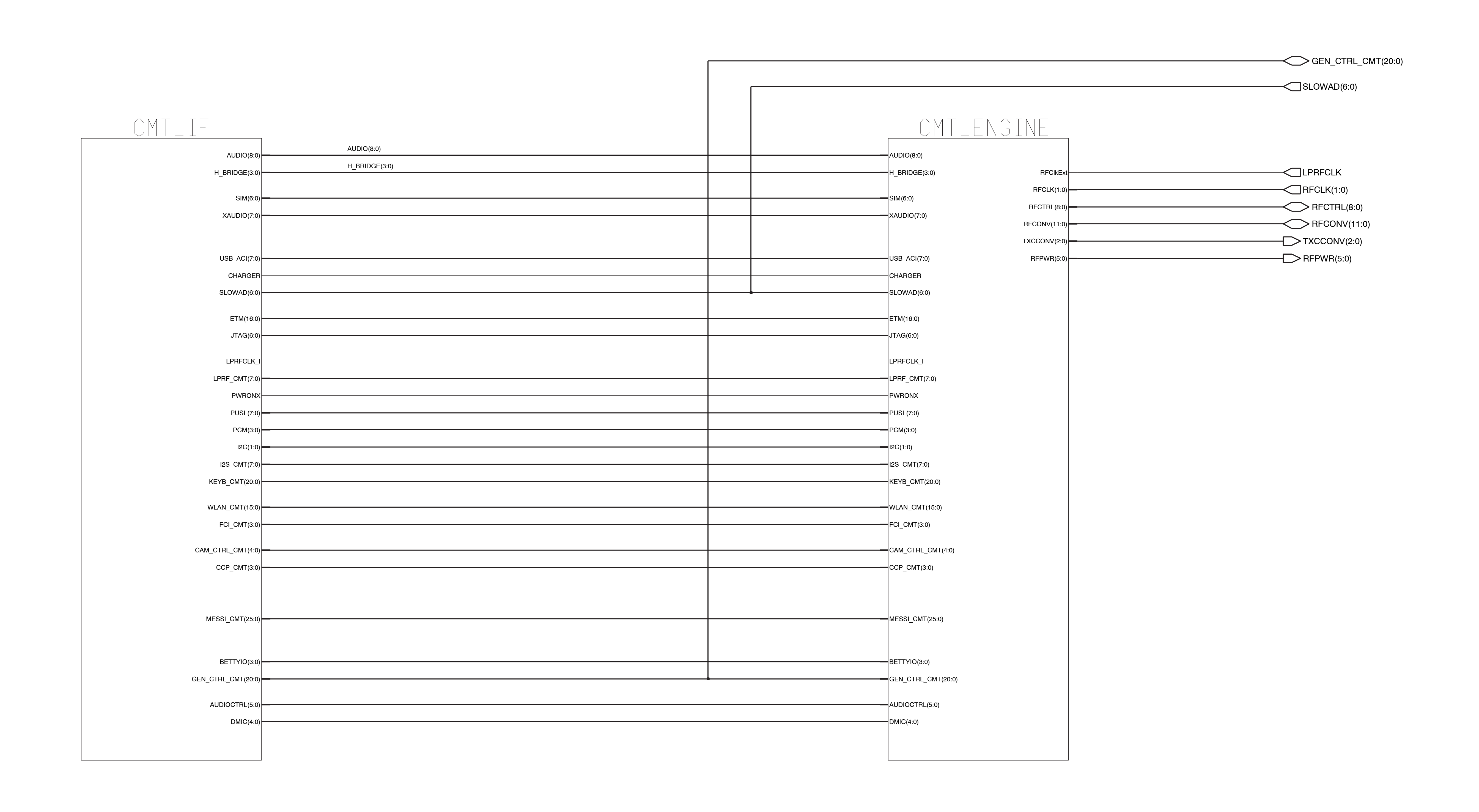
CMT SHEET NAME	REF AREA
/sys/cmt_engine/power/vilma	2200-2299
/sys/cmt_engine/power/betty	2300-2389
/sys/cmt_engine/power/coreps	2390-2399
/sys/cmt_engine/digi/rapido	2800-2849
/sys/cmt_engine/digi/geniomux	2850-2899
/sys/cmt_engine/digi/mem_cmt/combo	3000-3099
/sys/cmt_engine/digi/mem_cmt/sd_card	3200-3299

RF SHEET NAME	REF AREA
/RF	7500-7599
/MUTANT	8000-8010


Antenna switch


GND
100p
C8000
5n6H
L8000
NF
N8000
UPG2155TB-E4
1 OUT1
Vcont1 6
C8004
10p
2 GND
IN 5
3 OUT2
Vcont2 4
C8003
8p2
10nH
L8002
GND
100k
R8002
5n6H
L8001
NF
GND
C8002
10p
GND
RFC10
Antenna spring
X8000
RFC11
X8002
X8001
GND
4
3
X8003
GND
Antenna feed
X8007
GND
ANT
GEN_CTRL_CMT(20:0)
Antenna self test
ANT_2
2p7
C8008
2p7
C8007
R8001
2k7
L8004
5n6H
100p
C8006
11
L8005
3n9H
GND
Antenna WCDMA feed
GND
X8004
X8005
GND
X8006
4
3
GND





GEN_CTRL_CMT(20:0)
SLOWAD(6:0)
CMT_IF
CMT_ENGINE
AUDIO(8:0)
H_BRIDGE(3:0)
SIM(6:0)
XAUDIO(7:0)
USB_ACI(7:0)
CHARGER
SLOWAD(6:0)
ETM(16:0)
JTAG(6:0)
LPRFCLK_I
LPRF_CMT(7:0)
PWRONX
PUSL(7:0)
PCM(3:0)
I2C(1:0)
I2S_CMT(7:0)
KEYB_CMT(20:0)
WLAN_CMT(15:0)
FCI_CMT(3:0)
CAM_CTRL_CMT(4:0)
CCP_CMT(3:0)
MESSI_CMT(25:0)
BETTYIO(3:0)
GEN_CTRL_CMT(20:0)
AUDIOCTRL(5:0)
DMIC(4:0)
RFClkExt
RFCLK(1:0)
RFCTRL(8:0)
RFCONV(11:0)
TXCCONV(2:0)
RFPWR(5:0)
LPRFCLK
RFCLK(1:0)
RFCTRL(8:0)
RFCONV(11:0)
TXCCONV(2:0)
RFPWR(5:0)

SLOWAD(6:0)
LPRFCLK_I
LPRFCLK_I
TXC_CONV_I(2:0)

POWER

AUDIO(8:0)
H_BRIDGE(3:0)
SIM(6:0)
XAUDIO(7:0)
USB_ACI(7:0)
CHARGER
BETTYIO(3:0)
SLOWAD(6:0)
TXC_CONV(2:0)
DIG_AUDIO(5:0)
EMINT(1:0)
ACI(1:0)
TXC(2:0)
INT_SIM(2:0)
CBUS(3:0)
PUSL(7:0)
FCI_CMT(3:0)
INTUSB(8:0)
PWRONX
2200-2399

AUDIO(8:0)
H_BRIDGE(3:0)
SIM(6:0)
XAUDIO(7:0)
USB_ACI(7:0)
CHARGER
BETTYIO(3:0)
PWRONX
I2C(1:0)
PCM(3:0)
KEYB_CMT(20:0)
WLAN_CMT(15:0)
AUDIOCTRL(5:0)

DIG_AUDIO(5:0)
EMINT(1:0)
ACI(1:0)
TXC(2:0)
INT_SIM(2:0)
CBUS(3:0)
PUSL(7:0)

DIGI
basic

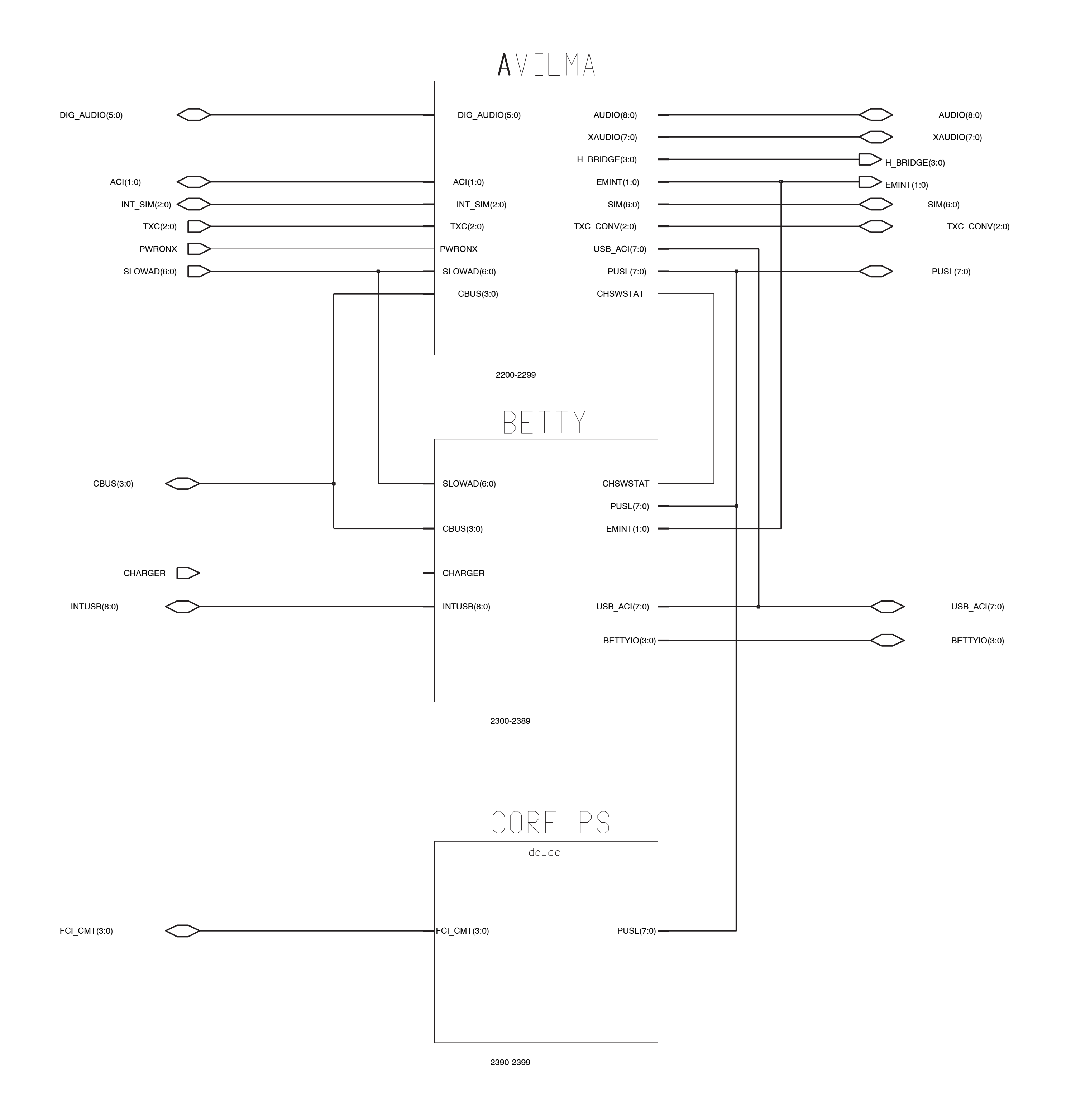
DIG_AUDIO(5:0)
EMINT(1:0)
ACI(1:0)
TXC(2:0)
INT_SIM(2:0)
CBUS(3:0)
PUSL(7:0)
I2C(1:0)
FCI_CMT(3:0)
PCM(3:0)
JTAG(6:0)
ETM(16:0)
KEYB_CMT(20:0)
WLAN_CMT(15:0)
AUDIOCTRL(5:0)
RFCLK_I(1:0)
RFCTRL_I(8:0)
RFCONV_I(11:0)
LPRF_CMT(7:0)
CAM_CTRL_CMT(4:0)
CCP_CMT(3:0)
DMIC(4:0)
I2S_CMT(7:0)
GEN_CTRL_CMT(20:0)
MESSI_CMT(25:0)
INTUSB(8:0)

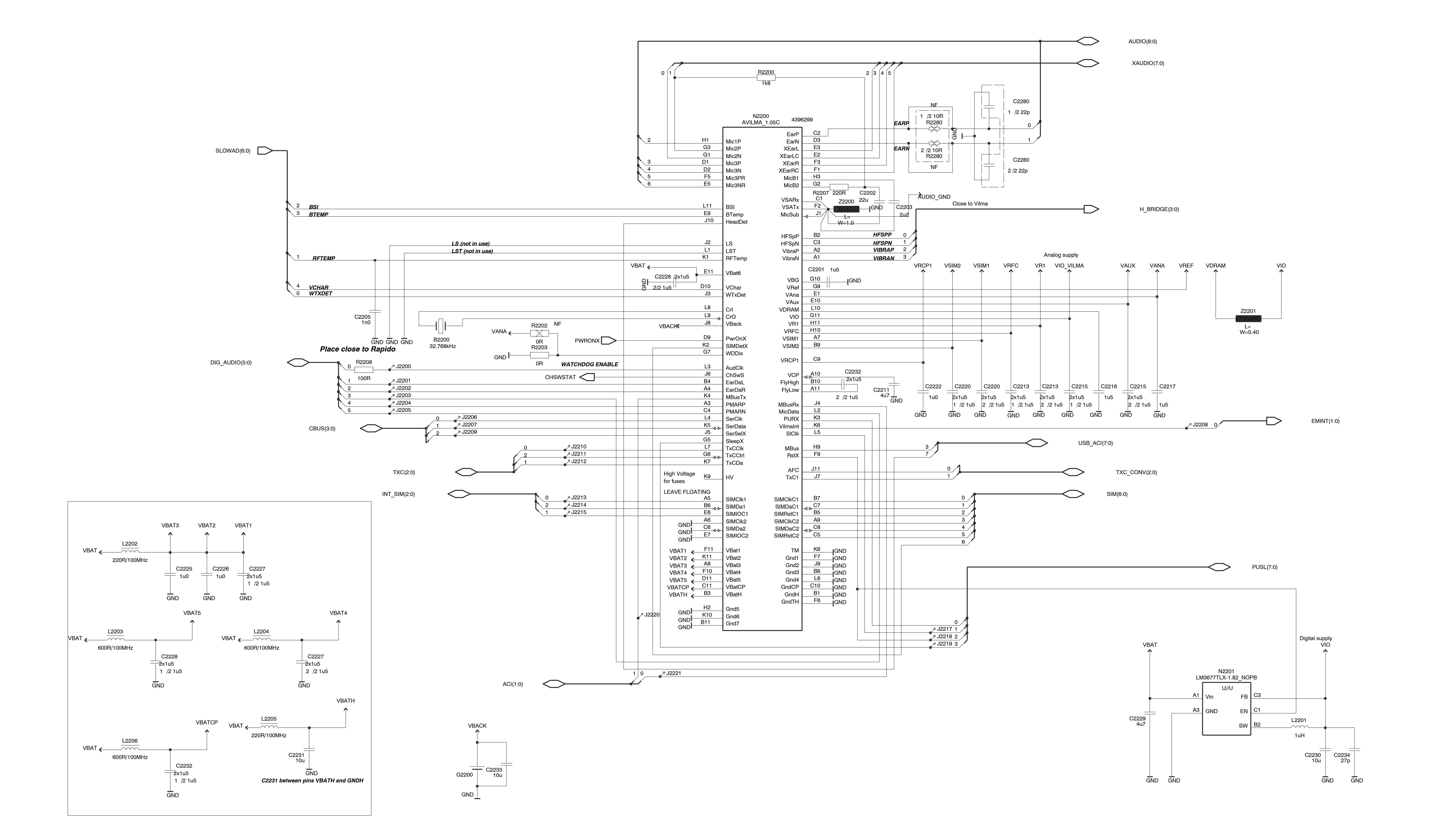
NO GPS in Bruce
RFCLK_I(1:0)
RFCTRL_I(8:0)
RFCONV_I(11:0)
LPRF_CMT(7:0)
CAM_CTRL_CMT(4:0)
CCP_CMT(3:0)

RF_BB
schematic

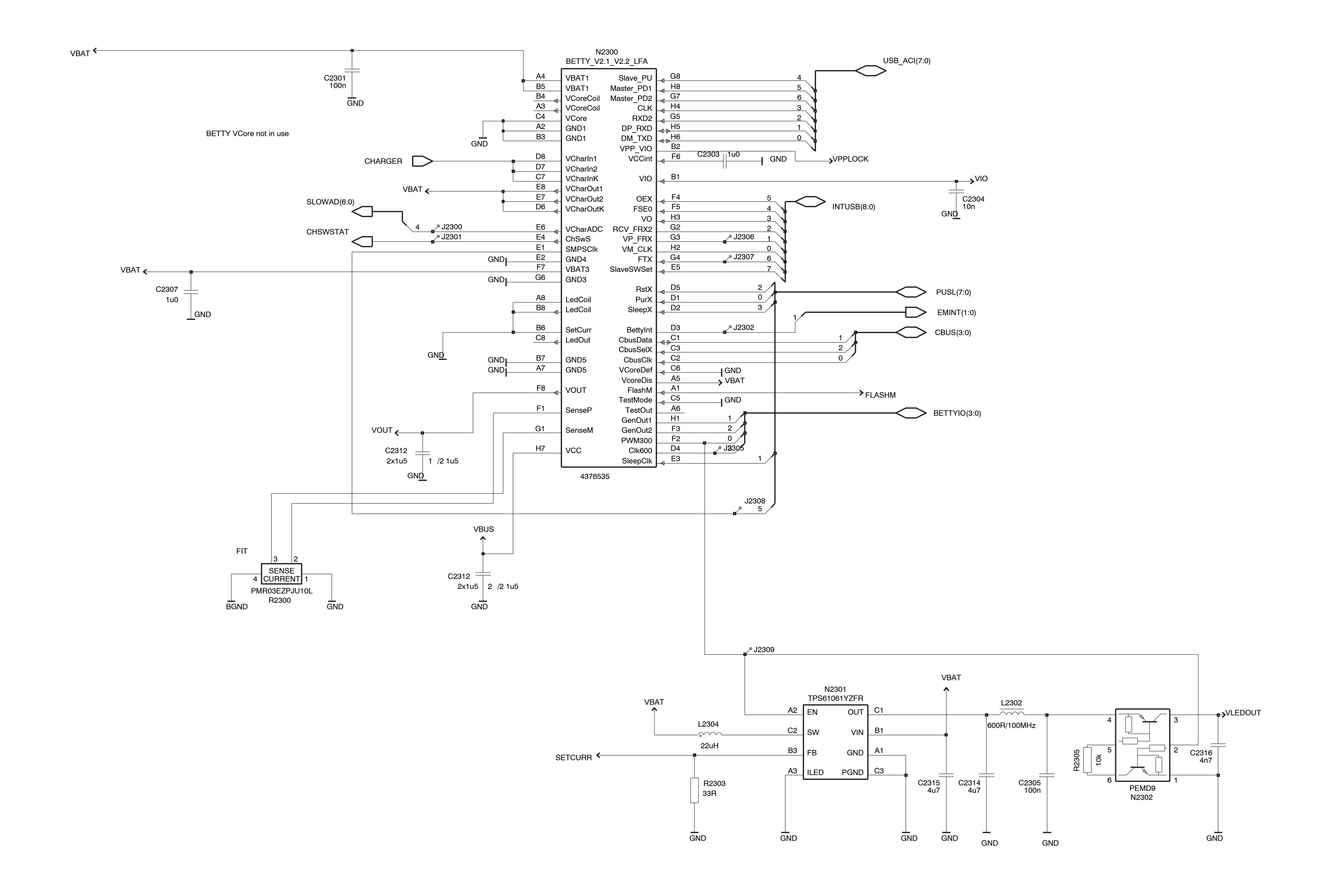
LPRFCLK_I
TXCCONV_I(2:0)
RFCLK_I(1:0)
RFCTRL_I(8:0)
RFCONV_I(11:0)
RFClkExt
RFCLK(1:0)
RFCTRL(8:0)
RFCONV(11:0)
TXCCONV(2:0)
RFPWR(5:0)

RFClkExt
RFCLK(1:0)
RFCTRL(8:0)
RFCONV(11:0)
TXCCONV(2:0)
RFPWR(5:0)
LPRF_CMT(7:0)
CAM_CTRL_CMT(4:0)
CCP_CMT(3:0)
DMIC(4:0)
I2S_CMT(7:0)
GEN_CTRL_CMT(20:0)
GEN_CTRL_CMT(20:0)
MESSI_CMT(25:0)
FCI_CMT(3:0)
FCI_CMT(3:0)
ETM(16:0)
ETM(16:0)
JTAG(6:0)
JTAG(6:0)
PUSL(7:0)
PUSL(7:0)

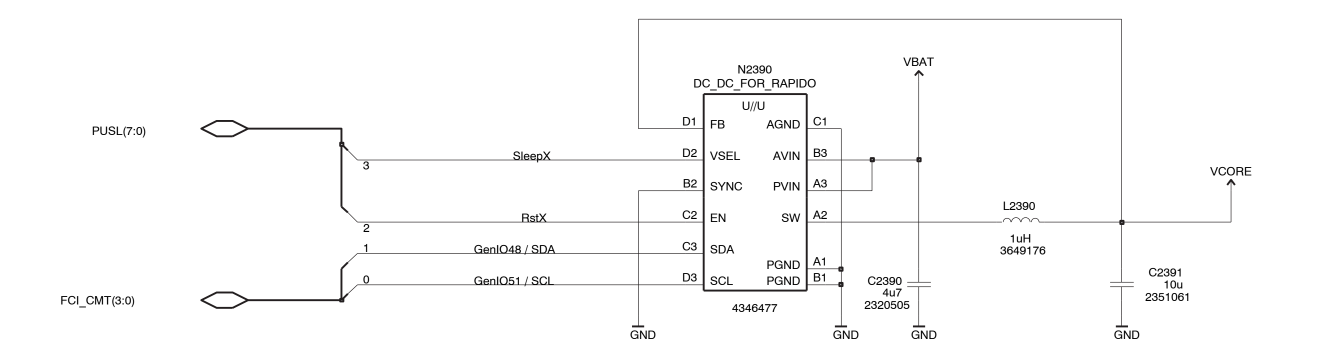

AVILMA
DIG_AUDIO(5:0)
DIG_AUDIO(5:0)
AUDIO(8:0)
AUDIO(8:0)
XAUDIO(7:0)
XAUDIO(7:0)
H_BRIDGE(3:0)
H_BRIDGE(3:0)
ACI(1:0)
ACI(1:0)
EMINT(1:0)
EMINT(1:0)
INT_SIM(2:0)
INT_SIM(2:0)
SIM(6:0)
SIM(6:0)
TXC(2:0)
TXC(2:0)
TXC_CONV(2:0)
TXC_CONV(2:0)
PWRONX
PWRONX
USB_ACI(7:0)
SLOWAD(6:0)
SLOWAD(6:0)
PUSL(7:0)
PUSL(7:0)
CBUS(3:0)
CHSWSTAT
2200-2299
BETTY
CBUS(3:0)
SLOWAD(6:0)
CHSWSTAT
PUSL(7:0)
CBUS(3:0)
EMINT(1:0)
CHARGER
CHARGER
INTUSB(8:0)
INTUSB(8:0)
USB_ACI(7:0)
USB_ACI(7:0)
BETTYIO(3:0)
BETTYIO(3:0)
2300-2389
CORE_PS
dc_dc
FCI_CMT(3:0)
FCI_CMT(3:0)
PUSL(7:0)
2390-2399



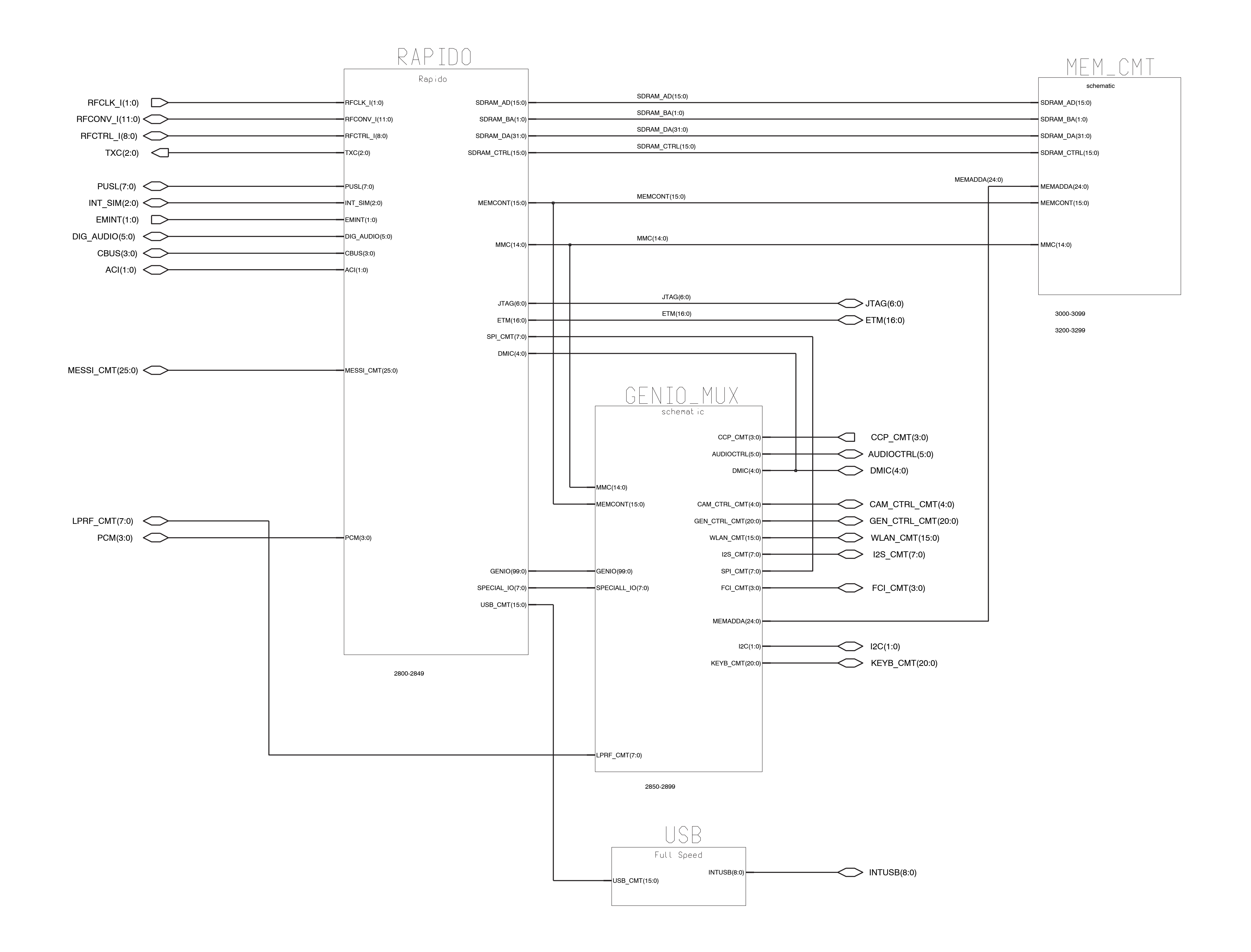
AUDIO(8:0)
XAUDIO(7:0)
N2200
AVILMA_1.05C
4396299
SLOWAD(6:0)
BSI
BTEMP
RFTEMP
VCHAR
WTXDET
LS (not in use)
LST (not in use)
Place close to Rapido
32.768kHz
WATCHDOG ENABLE
DIG_AUDIO(5:0)
CHSWSTAT
PWRONX
CBUS(3:0)
TXC(2:0)
INT_SIM(2:0)
High Voltage
for fuses
LEAVE FLOATING
ACI(1:0)
AUDIO_GND
Close to Vilma
H_BRIDGE(3:0)
HFSPP
HFSPN
VIBRAP
VIBRAN
Analog supply
VRCP1
VSIM2
VSIM1
VRFC
VR1
VIO_VILMA
VAUX
VANA
VREF
VDRAM
VIO
EMINT(1:0)
USB_ACI(7:0)
TXC_CONV(2:0)
SIM(6:0)
PUSL(7:0)
Digital supply
N2201
LM3677TLX-1.82_NOPB
C2231 between pins VBATH and GNDH
VBACK
VBATH
VBATCP

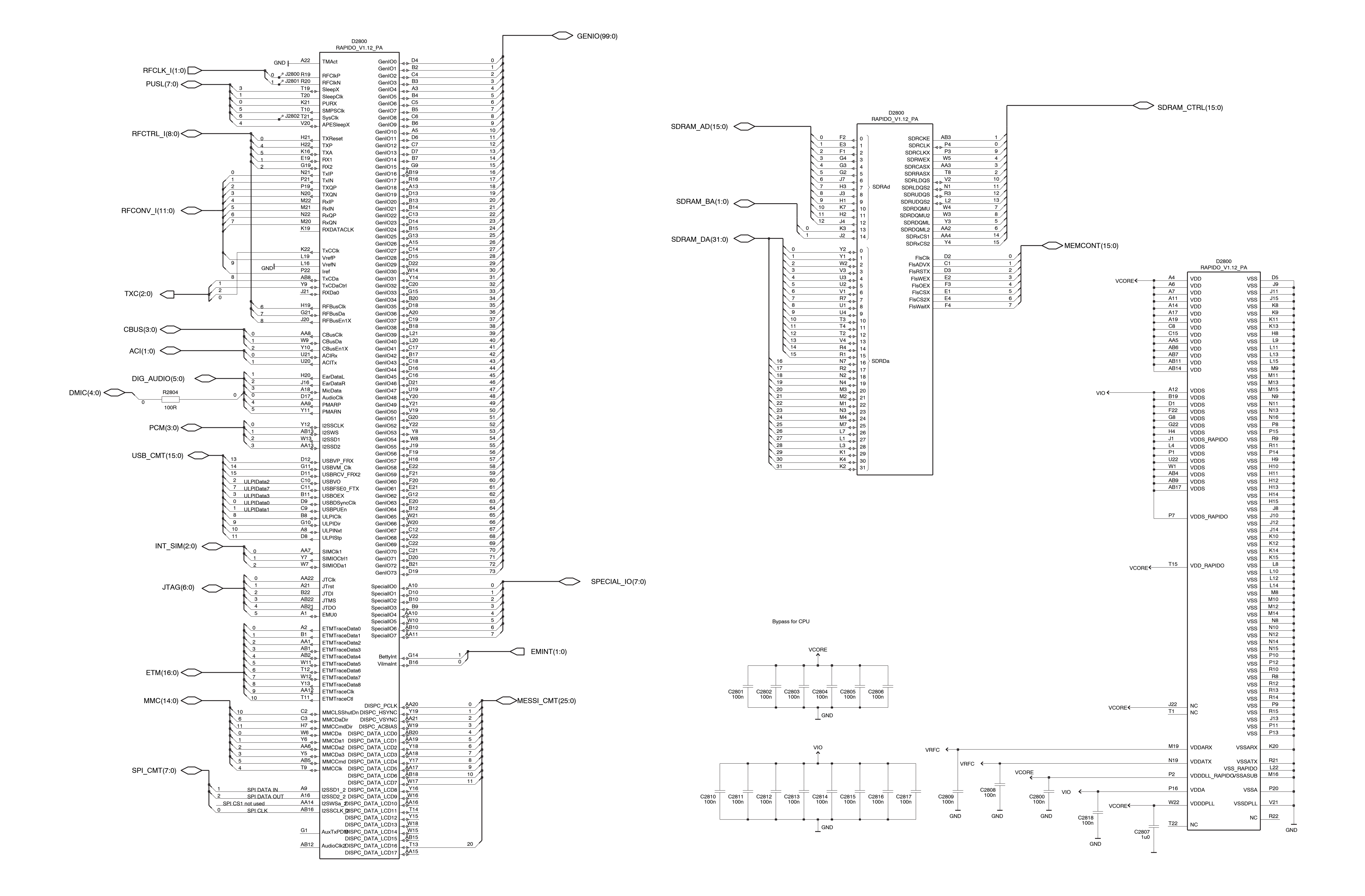


N2300
BETTY_V2.1_V2.2_LFA
4376535
VBAT
C2301
100n
GND
BETTY VCore not in use
CHARGER
SLOWAD(6:0)
CHSWSTAT
J2300
J2301
C2307
1u0
VOUT
C2312
2x1u5
VBUS
FIT
SENSE CURRENT
PMR03EZPJU10L
R2300
BGND
USB_ACI(7:0)
VPPLOCK
VIO
C2304
10n
INTUSB(8:0)
PUSL(7:0)
EMINT(1:0)
CBUS(3:0)
FLASHM
BETTYIO(3:0)
J2302
J2305
J2306
J2307
J2308
J2309
N2301
TPS61061YZFR
L2304
22uH
SETCURR
R2303
33R
C2315
4u7
C2314
4u7
C2305
100n
L2302
600R/100MHz
PEMD9
N2302
R2305
10k
C2316
4n7
VLEDOUT

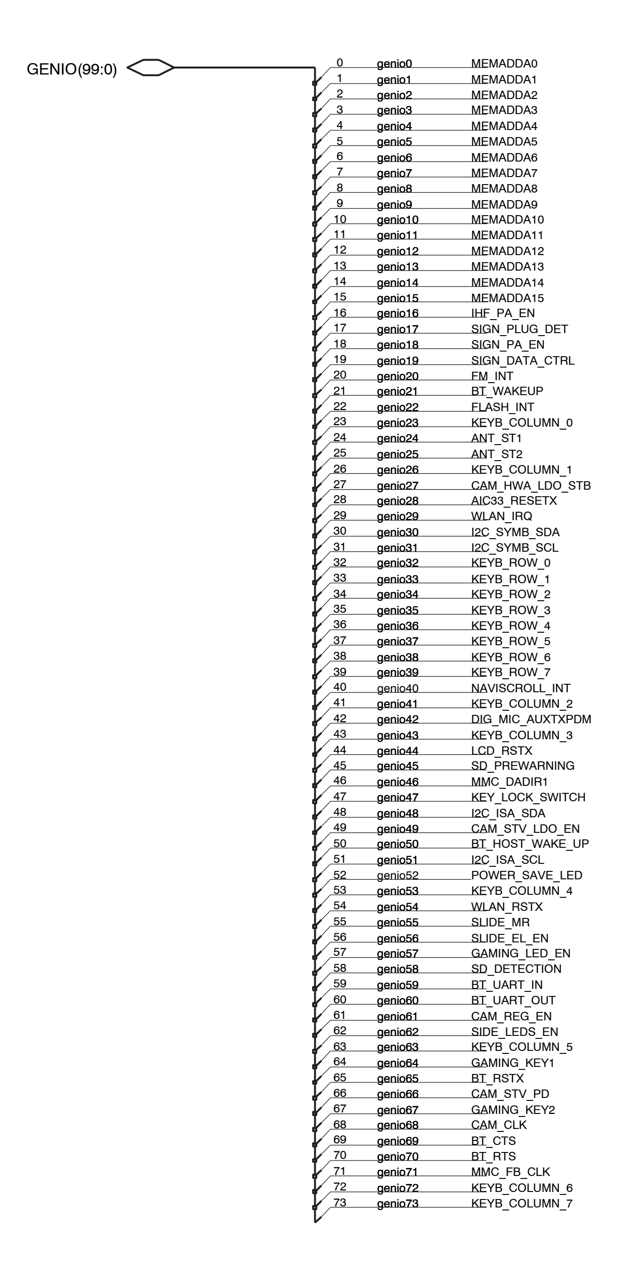


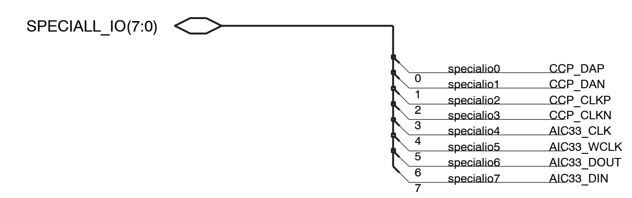
PUSL(7:0)
FCI_CMT(3:0)
3
2
1
0
SleepX
RstX
GenIO48 / SDA
GenIO51 / SCL
N2390
DC_DC_FOR_RAPIDO
U//U
D1
D2
B2
C2
C3
D3
FB
VSEL
SYNC
EN
SDA
SCL
AGND
AVIN
PVIN
SW
PGND
PGND
C1
B3
A3
A2
A1
B1
4346477
VBAT
C2390
4u7
2320505
L2390
1uH
3649176
C2391
10u
2351061
VCORE
GND
GND
GND
GND

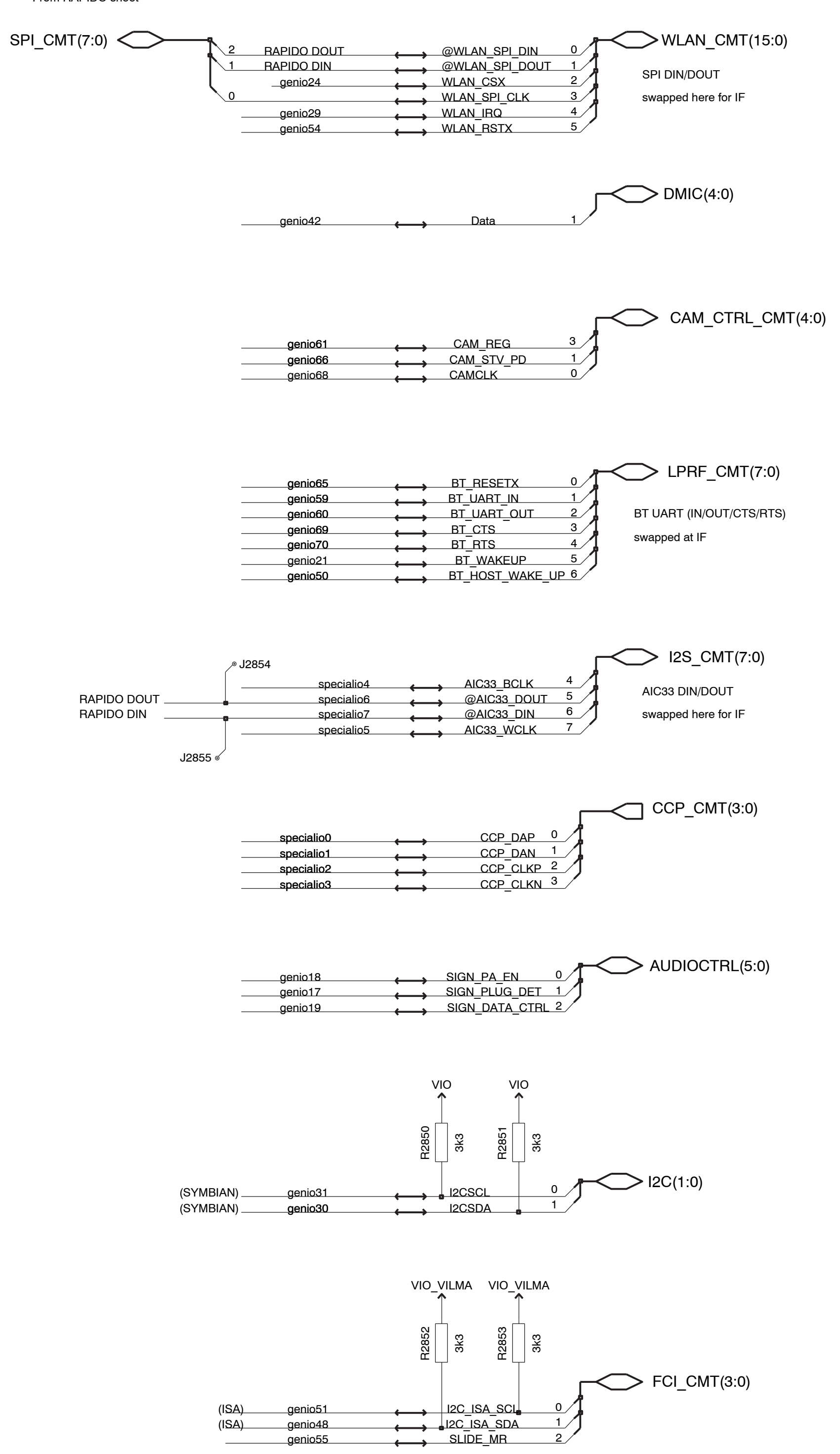

RAPIDO
Rapido
RFCLK_I(1:0)
RFCONV_I(11:0)
RFCTRL_I(8:0)
TXC(2:0)
PUSL(7:0)
INT_SIM(2:0)
EMINT(1:0)
DIG_AUDIO(5:0)
CBUS(3:0)
ACI(1:0)
MESSI_CMT(25:0)
LPRF_CMT(7:0)
PCM(3:0)
SDRAM_AD(15:0)
SDRAM_BA(1:0)
SDRAM_DA(31:0)
SDRAM_CTRL(15:0)
MEMCONT(15:0)
MMC(14:0)
JTAG(6:0)
ETM(16:0)
SPI_CMT(7:0)
DMIC(4:0)
GENIO(99:0)
SPECIAL_IO(7:0)
USB_CMT(15:0)
2800-2849
MEM_CMT
schematic
MEMADDA(24:0)
3000-3099
3200-3299
GENIO_MUX
schematic
CCP_CMT(3:0)
AUDIOCTRL(5:0)
CAM_CTRL_CMT(4:0)
GEN_CTRL_CMT(20:0)
WLAN_CMT(15:0)
I2S_CMT(7:0)
FCI_CMT(3:0)
SPECIALL_IO(7:0)
I2C(1:0)
KEYB_CMT(20:0)
2850-2899
USB
Full Speed
INTUSB(8:0)

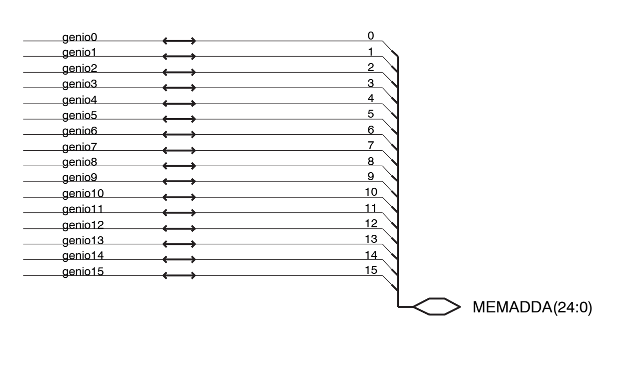

D2800
RAPIDO_V1.12_PA
GENIO(99:0)
RFCLK_I(1:0)
PUSL(7:0)
RFCTRL_I(8:0)
RFCONV_I(11:0)
TXC(2:0)
CBUS(3:0)
ACI(1:0)
DIG_AUDIO(5:0)
DMIC(4:0)
R2804
100R
PCM(3:0)
USB_CMT(15:0)
INT_SIM(2:0)
JTAG(6:0)
SPECIAL_IO(7:0)
ETM(16:0)
EMINT(1:0)
MMC(14:0)
MESSI_CMT(25:0)
SPI_CMT(7:0)
SPI DATA IN
SPI DATA OUT
SPI CS1 not used
SPI CLK
SDRAM_AD(15:0)
SDRAM_BA(1:0)
SDRAM_DA(31:0)
SDRAM_CTRL(15:0)
MEMCONT(15:0)
SDRAd
SDRDa
VCORE
VIO
VRFC
GND
Bypass for CPU
C2801 100n
C2802 100n
C2803 100n
C2804 100n
C2805 100n
C2806 100n
C2810 100n
C2811 100n
C2812 100n
C2813 100n
C2814 100n
C2815 100n
C2816 100n
C2817 100n
C2809 100n
C2808 100n
C2800 100n
C2818 100n
C2807 1u0

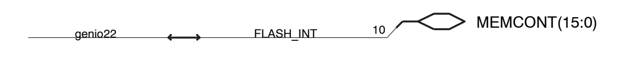
GenIO update 08.08.2006

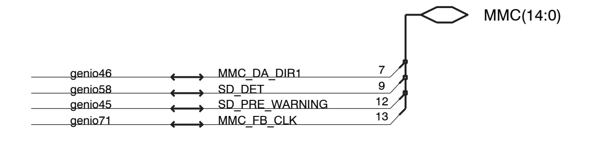










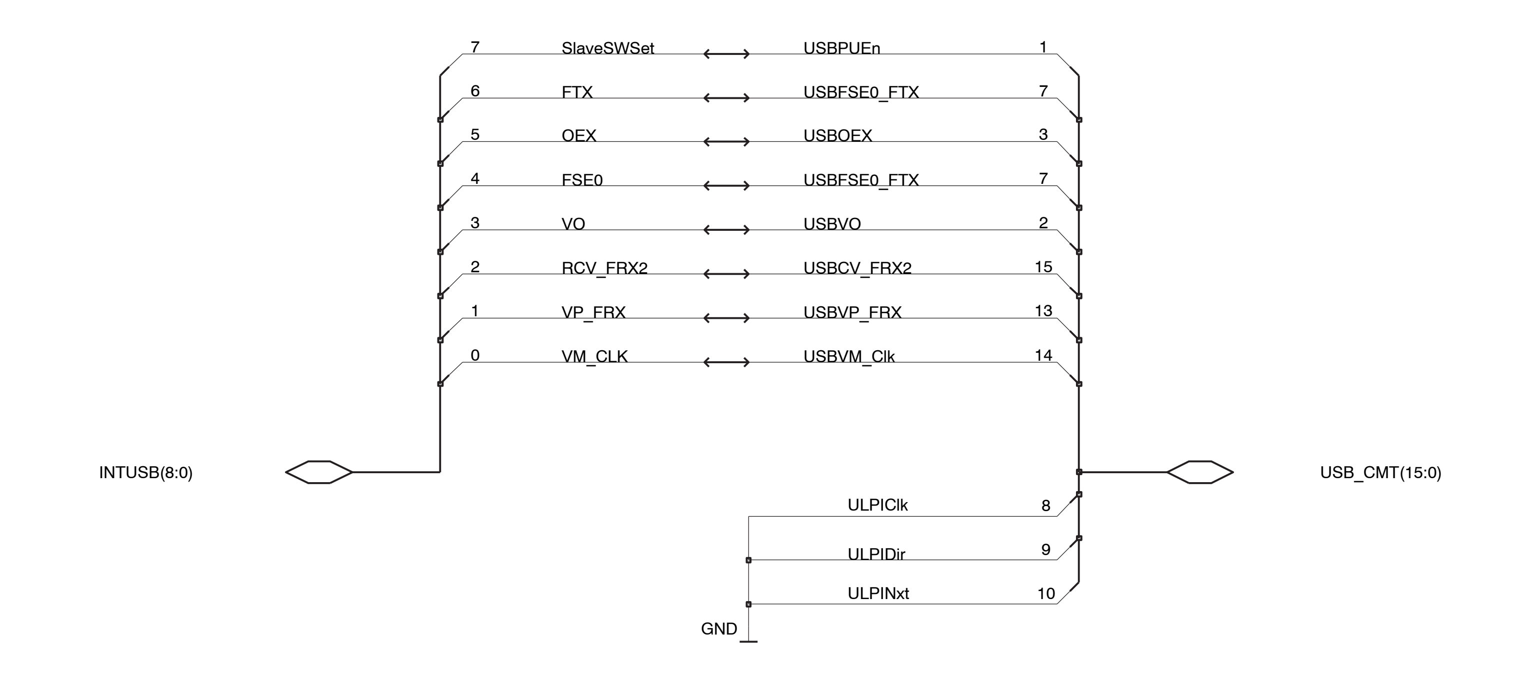


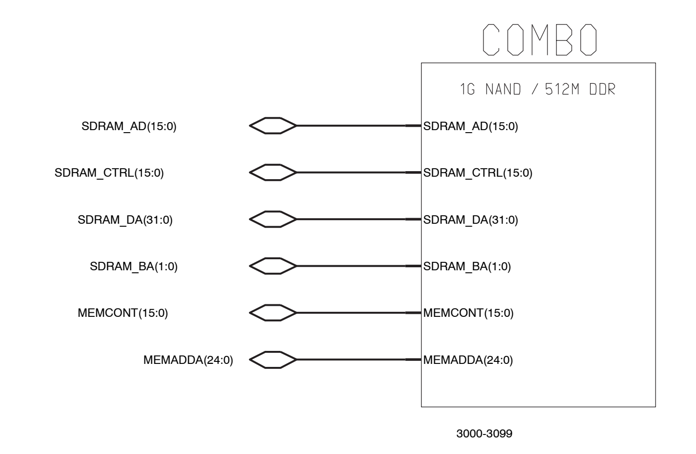
KEYB_CMT(20:0)

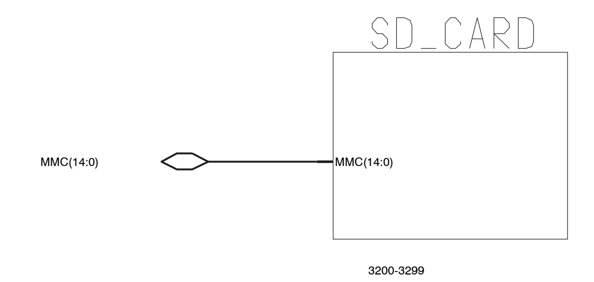
genio32	KEYB_ROW_0	0
genio33	KEYB_ROW_1	1
genio34	KEYB_ROW_2	2
genio35	KEYB_ROW_3	3
genio36	KEYB_ROW_4	4
genio37	KEYB_ROW_5	5
genio38	KEYB_ROW_6	6
genio39	KEYB_ROW_7	7
genio23	KEYB_COLUMN_0	8
genio26	KEYB_COLUMN_1	9
genio41	KEYB_COLUMN_2	10
genio43	KEYB_COLUMN_3	11
genio53	KEYB_COLUMN_4	12
genio63	KEYB_COLUMN_5	13
genio72	KEYB_COLUMN_6	14
genio73	KEYB_COLUMN_7	15

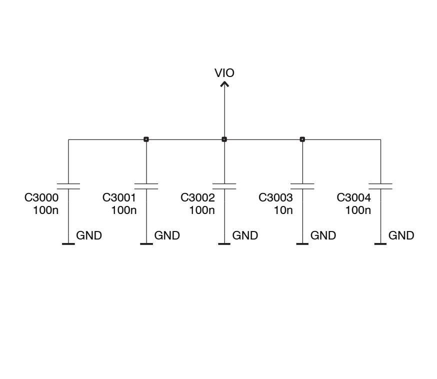
GEN_CTRL_CMT(20:0)

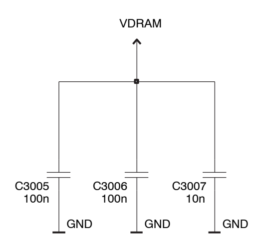
genio49	CAM_HWA_LDO_EN	0
genio27	CAM_HWA_LDO_STB	1
genio64	GAMING_KEY1	2
genio67	GAMING_KEY2	3
genio20	FM_INT	5
genio44	LCD_RESET	6
genio52	POWER_SAVE_LED	7
genio57	GAMING_LED_EN	8
genio56	SLIDER_EL_EN	9
genio25	ANT_ST2	11
genio16	IHF_PA_EN	12
genio28	AIC33_RESETX	13
genio40	NAVISCROLL_INT	14
genio47	KEY_LOCK_SWITCH	15
genio62	SIDE_LEDS_EN	16

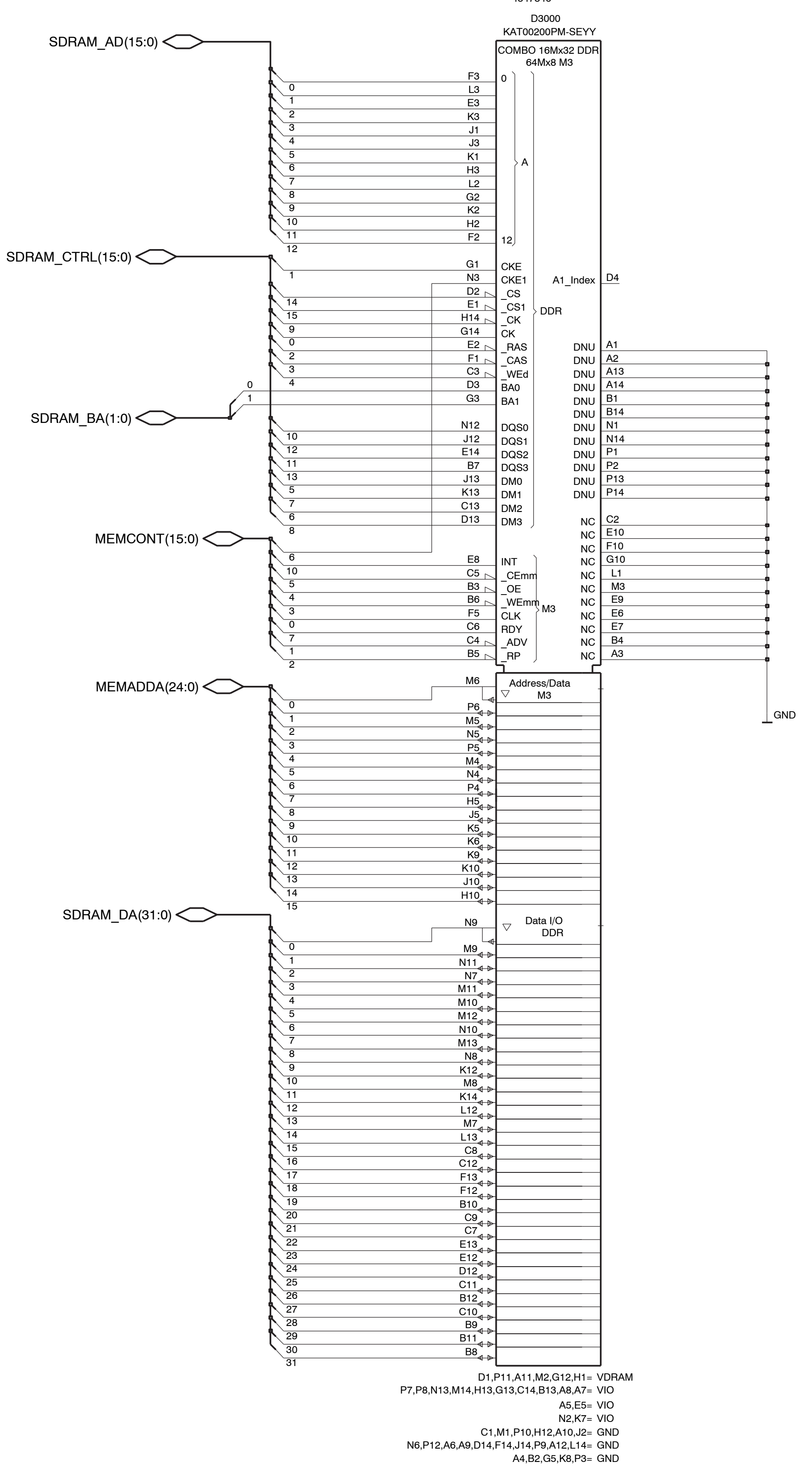

7 SlaveSWSet USBPUEn 1
6 FTX USBFSE0_FTX 7
5 OEX USBOEX 3
4 FSE0 USBFSE0_FTX 7
3 VO USBVO 2
2 RCV_FRX2 USBCV_FRX2 15
1 VP_FRX USBVP_FRX 13
0 VM_CLK USBVM_Clk 14
INTUSB(8:0)
USB_CMT(15:0)
ULPIClk 8
ULPIDir 9
ULPINxt 10
GND

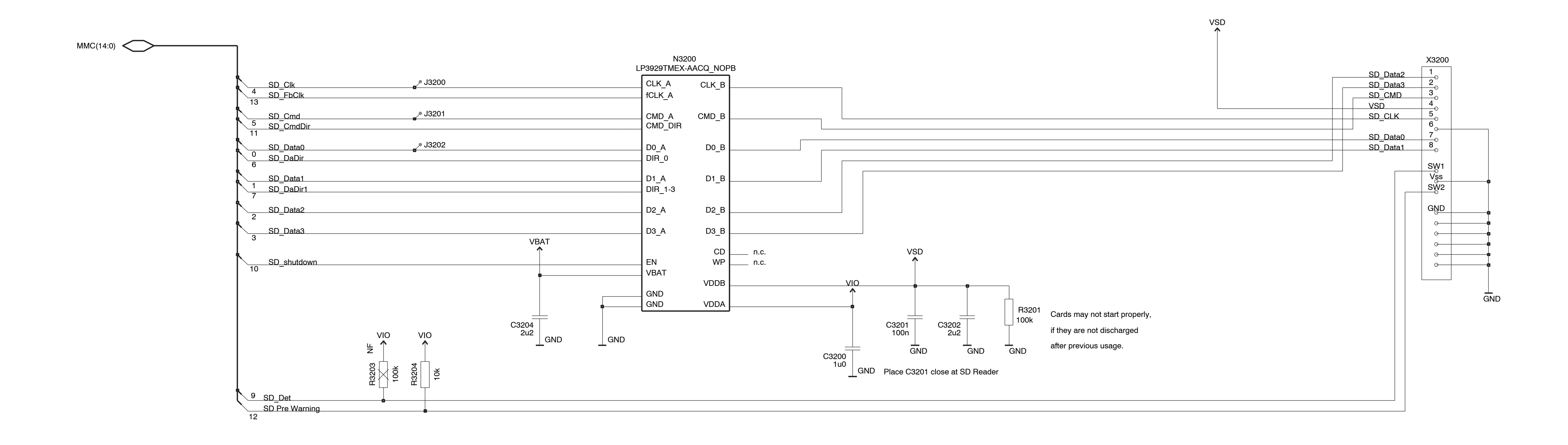

COMBO
1G NAND / 512M DDR
SDRAM_AD(15:0)
SDRAM_CTRL(15:0)
SDRAM_DA(31:0)
SDRAM_BA(1:0)
MEMCONT(15:0)
MEMADDA(24:0)
SDRAM_AD(15:0)
SDRAM_CTRL(15:0)
SDRAM_DA(31:0)
SDRAM_BA(1:0)
MEMCONT(15:0)
MEMADDA(24:0)
3000-3099


SD_CARD
MMC(14:0)
MMC(14:0)
3200-3299


VIO
C3000
100n
C3001
100n
C3002
100n
C3003
10n
C3004
100n
GND


VDRAM
C3005
100n
C3006
100n
C3007
10n
GND


4347846
D3000
KAT00200PM-SEYY
COMBO 16Mx32 DDR
64Mx8 M3
SDRAM_AD(15:0)
SDRAM_CTRL(15:0)
SDRAM_BA(1:0)
MEMCONT(15:0)
MEMADDA(24:0)
SDRAM_DA(31:0)
CKE
CKE1
_CS
_CS1
_CK
CK
_RAS
_CAS
_WEd
BA0
BA1
DQS0
DQS1
DQS2
DQS3
DM0
DM1
DM2
DM3
DDR
A1_Index
INT
_CEmm
_OE
_WEmm
CLK
RDY
_ADV
_RP
M3
Address/Data
Data I/O
DNU
NC
GND
D1,P11,A11,M2,G12,H1= VDRAM
P7,P8,N13,M14,H13,G13,C14,B13,A8,A7= VIO
A5,E5= VIO
N2,K7= VIO
C1,M1,P10,H12,A10,J2= GND
N6,P12,A6,A9,D14,F14,J14,P9,A12,L14= GND
A4,B2,G5,K8,P3= GND


MMC(14:0)
SD_Clk
SD_FbClk
SD_Cmd
SD_CmdDir
SD_Data0
SD_DaDir
SD_Data1
SD_DaDir1
SD_Data2
SD_Data3
SD_shutdown
SD_Det
SD Pre Warning
J3200
J3201
J3202
N3200
LP3929TMEX-AACQ_NOPB
CLK_A
fCLK_A
CMD_A
CMD_DIR
D0_A
DIR_0
D1_A
DIR_1-3
D2_A
D3_A
EN
VBAT
GND
CLK_B
CMD_B
D0_B
D1_B
D2_B
D3_B
CD
WP
n.c.
VDDB
VDDA
VSD
VIO
C3204
2u2
C3200
1u0
C3201
100n
C3202
R3201
100k
R3203
R3204
10k
NF
Cards may not start properly,
if they are not discharged
after previous usage.
Place C3201 close at SD Reader
X3200
SD_Data2
SD_Data3
SD_CMD
SD_CLK
SD_Data0
SD_Data1
SW1
Vss
SW2
GND

CBB5X

TOP SHEET

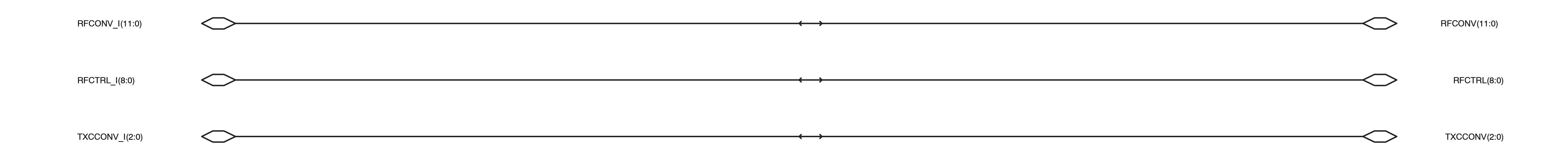
RFCLK_I(1:0)

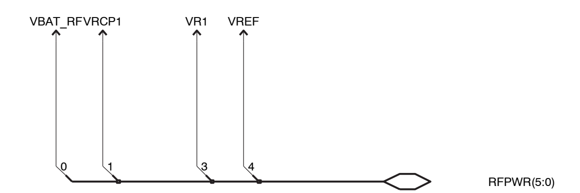
RFCLK(1:0)

Own CLK on Wlan-sheet

LPRFCLK_I

RFClkExt





AUDIO

AUDIO(8:0) — AUDIO(8:0)
XAUDIO(7:0) — XAUDIO(7:0)
DMIC(4:0) — DMIC(4:0)
GEN_CTRL_CMT(20:0) — GEN_CTRL_CMT(20:0)
FCI_CMT(3:0) — FCI_CMT(3:0)
I2S_CMT(7:0) — I2S_CMT(7:0)
PUSL(7:0) — PUSL(7:0)
AUDIOCTRL(5:0) — AUDIOCTRL(5:0)
USB_ACI(7:0) — USB_ACI(7:0)
H_BRIDGE(3:0) — H_BRIDGE(3:0)
FM_AUDIO(1:0) — FM_AUDIO(1:0)
ANT_FM — ANT_FM

2100-2199

SIM

SIM(6:0) — SIMIF(6:0)

2700-2799

LID

I2C(1:0) — I2C(1:0)
AUDIO(8:0) — AUDIO(8:0)
BETTYIO(3:0) — BETTYIO(3:0)
GEN_CTRL_CMT(20:0) — GEN_CTRL_CMT(20:0)
KEYB_CMT(20:0) — KEYB_CMT(20:0)
MESSI_CMT(25:0) — MESSI_CMT(25:0)
CAM_CTRL(4:0) — CAM_CTRL(4:0)
CAM_CCP(7:0) — CAM_CCP(7:0)

3800-3899

ITU

PWRONX — PWRONX
KEYB_CMT(20:0) — KEYB_CMT(20:0)
GEN_CTRL_CMT(20:0) — GEN_CTRL_CMT(20:0)
FCI_CMT(3:0) — FCI_CMT(3:0)
BETTYIO(3:0) — BETTYIO(3:0)

2400-2499

CAMERA

I2C(1:0) — I2C(1:0)
CCP_CMT(3:0) — CCP_CMT(3:0)
CAM_CTRL_CMT(4:0) — CAM_CTRL_CMT(4:0)
GEN_CTRL_CMT(20:0) — GEN_CTRL_CMT(20:0)
CAM_CTRL(4:0) — CAM_CTRL(4:0)
CAM_CCP(7:0) — CAM_CCP(7:0)

2500-2599

EMU_RAP

JTAG(6:0) — JTAG(6:0)
ETM(16:0) — ETM(16:0)
PUSL(7:0) — PUSL(7:0)

3100-3199

CONN

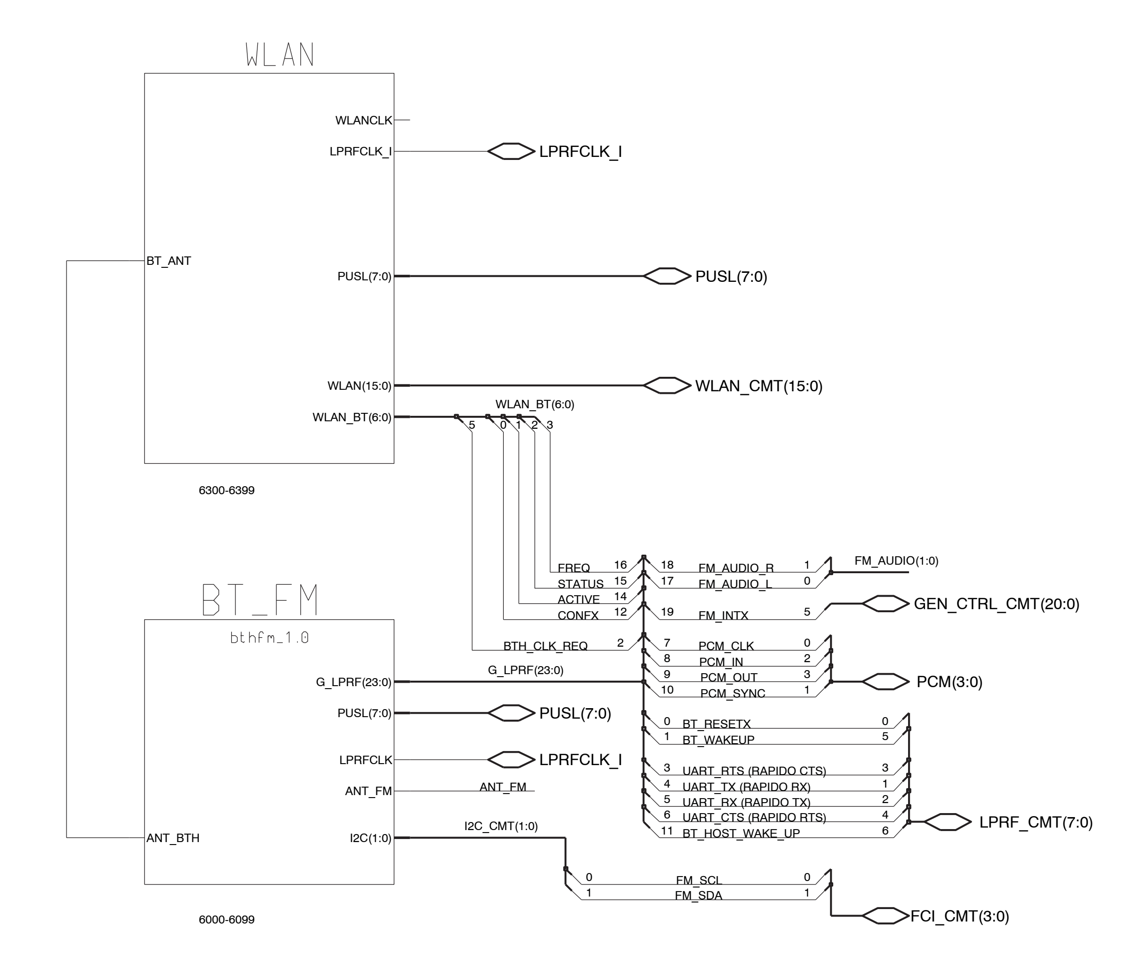
CHARGER — CHARGER
USB_ACI(7:0) — USB_ACI(7:0)
SLOWAD(6:0) — SLOWAD(6:0)

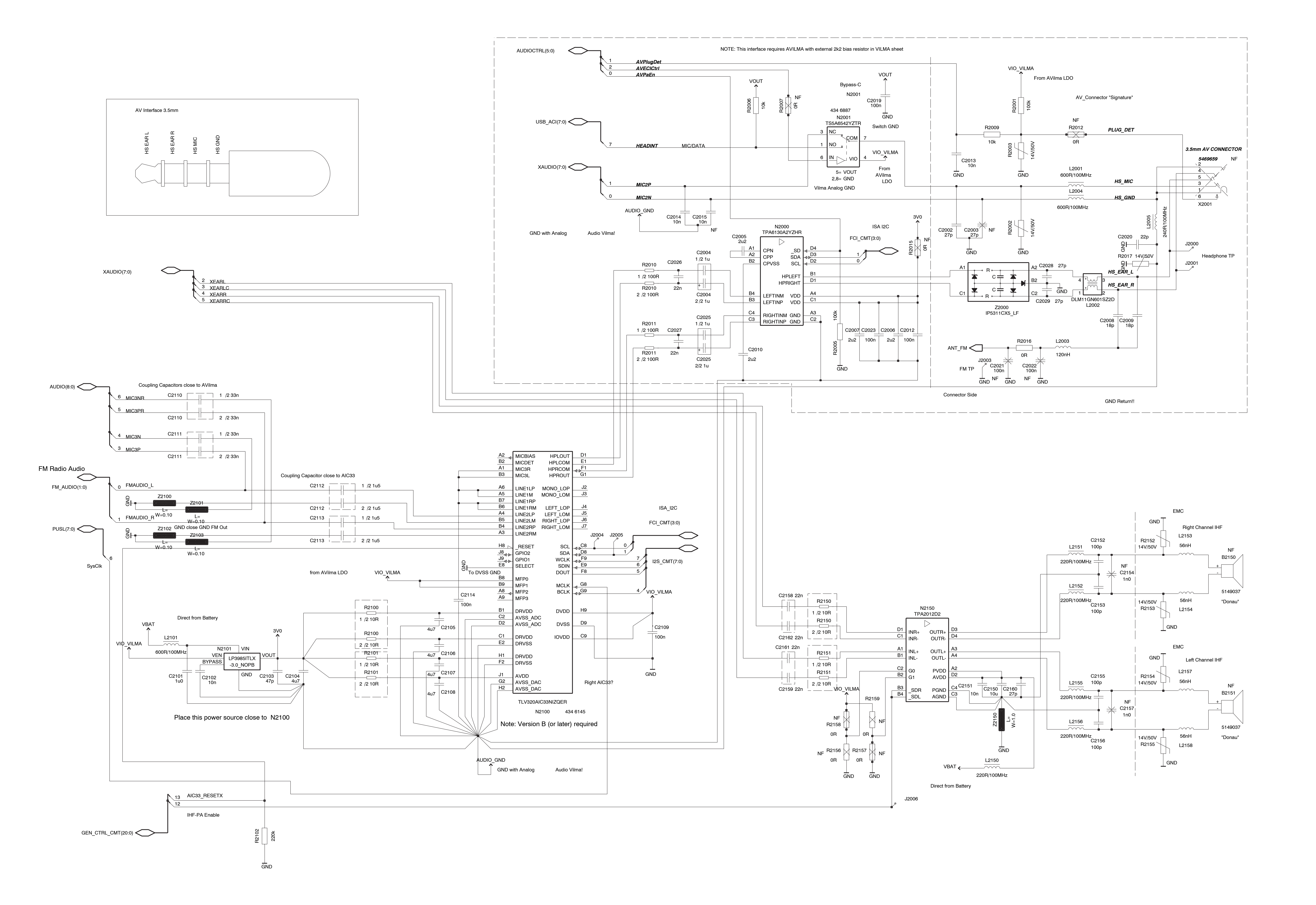
2000-2099

WING

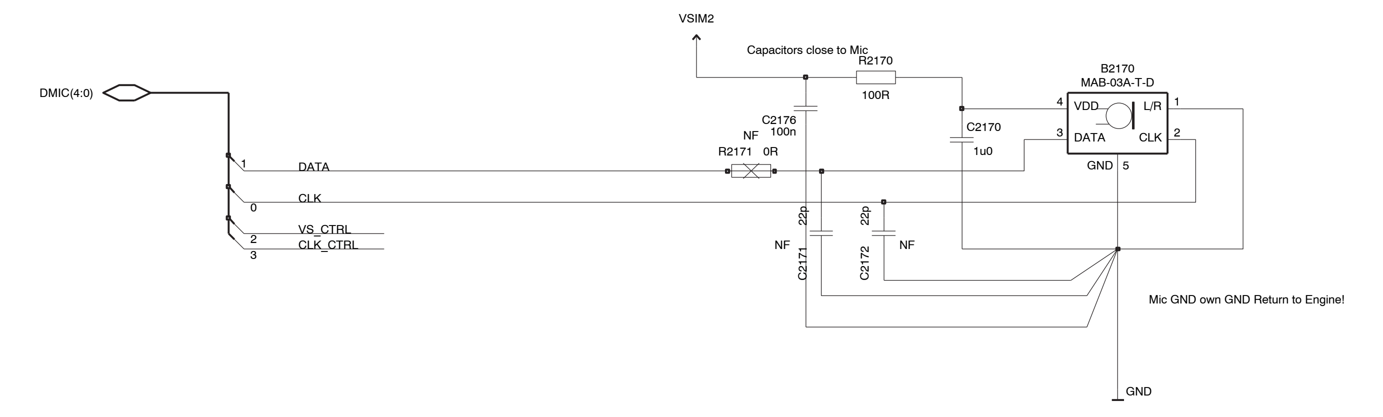
FCI_CMT(3:0) — FCI_CMT(3:0)
I2C(1:0) — I2C(1:0)
PUSL(7:0) — PUSL(7:0)
SLOWAD(6:0) — SLOWAD(6:0)
USB_ACI(7:0) — USB_ACI(7:0)
ETM(16:0) — ETM(16:0)
JTAG(6:0) — JTAG(6:0)
I2S_CMT(7:0) — I2S_CMT(7:0)

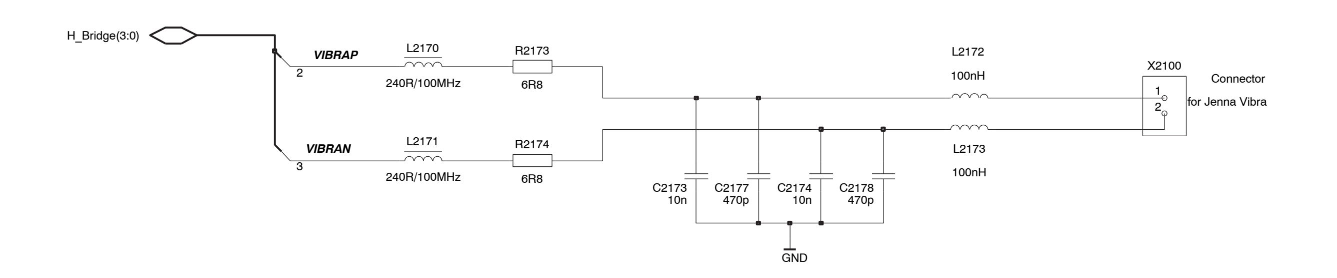
4000-4099

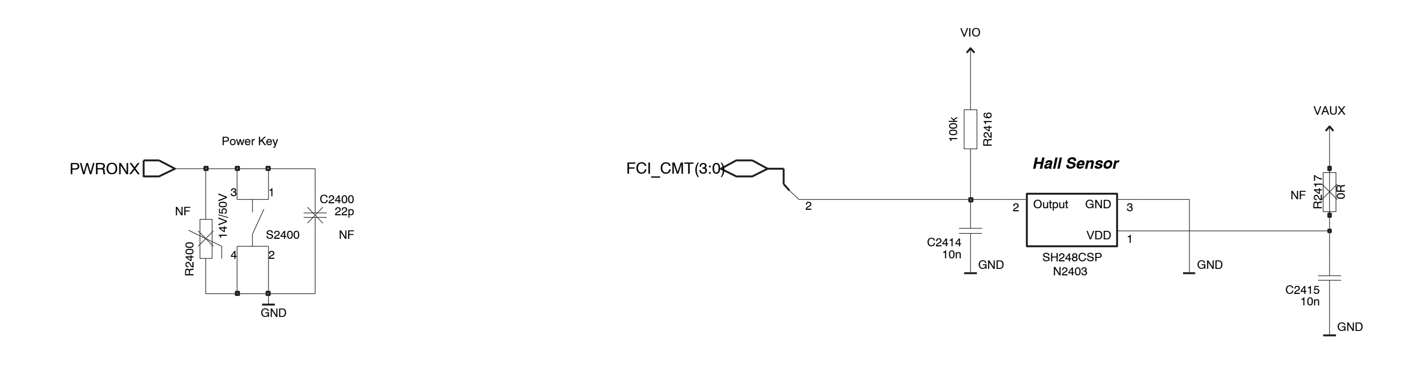


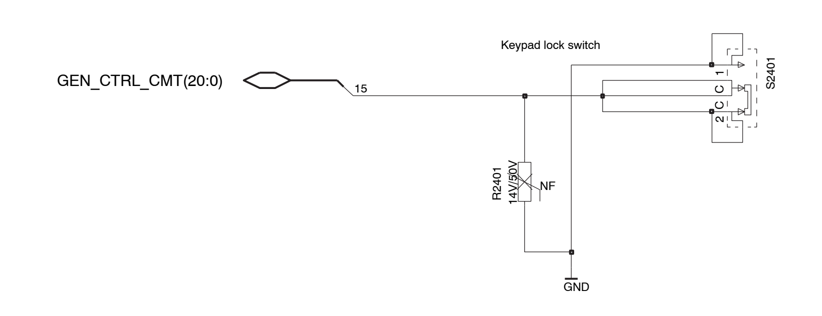


NOTE: This interface requires AVILMA with external 2k2 bias resistor in VILMA sheet
AUDIOCTRL(5:0)
AVPlugDet
AVECICtrl
AVPaEn
USB_ACI(7:0)
HEADINT
MIC/DATA
XAUDIO(7:0)
MIC2P
MIC2N
AUDIO_GND
GND with Analog
Audio Vilma!
AV Interface 3.5mm
HS EAR L
HS EAR R
HS MIC
HS GND
Bypass-C
N2001
434 6887
TS5A6542YZTR
Switch GND
Vilma Analog GND
From AVilma LDO
VIO_VILMA
AV_Connector "Signature"
PLUG_DET
3.5mm AV CONNECTOR
5469659
HS_MIC
HS_GND
X2001
N2000
TPA6130A2YZHR
ISA I2C
FCI_CMT(3:0)
HS_EAR_L
HS_EAR_R
Headphone TP
Z2000
IP5311CX5_LF
DLM11GN601SZ2D
L2002
ANT_FM
FM TP
Connector Side
GND Return!!
XEARL
XEARLC
XEARR
XEARRC
AUDIO(8:0)
Coupling Capacitors close to AVilma
MIC3NR
MIC3PR
MIC3N
MIC3P
FM Radio Audio
FM_AUDIO(1:0)
FMAUDIO_L
FMAUDIO_R
GND close GND FM Out
Coupling Capacitor close to AIC33
PUSL(7:0)
SysClk
from AVilma LDO
To DVSS GND
ISA_I2C
I2S_CMT(7:0)
Direct from Battery
VBAT
LP3985ITLX -3.0_NOPB
Place this power source close to N2100
TLV320AIC33NIZQER
N2100 434 6145
Note: Version B (or later) required
Right AIC33?
AUDIO_GND
GND with Analog
Audio Vilma!
N2150
TPA2012D2
EMC
Right Channel IHF
Left Channel IHF
B2150
B2151
5149037 "Donau"
Direct from Battery
AIC33_RESETX
IHF-PA Enable
GEN_CTRL_CMT(20:0)
R2102 220k
J2006


Shielded Lines for Mic!
VSIM2
Capacitors close to Mic
R2170
100R
B2170
MAB-03A-T-D
DMIC(4:0)
C2176
100n
NF
R2171
0R
C2170
1u0
VDD
L/R
DATA
CLK
GND
DATA
CLK
VS_CTRL
CLK_CTRL
22p
22p
NF
NF
C2171
C2172
Mic GND own GND Return to Engine!
GND


H_Bridge(3:0)
VIBRAP
VIBRAN
L2170
240R/100MHz
L2171
240R/100MHz
R2173
6R8
R2174
6R8
L2172
100nH
L2173
100nH
X2100
Connector
for Jenna Vibra
C2173
10n
C2177
470p
C2174
10n
C2178
470p
GND





KEYB_CMT(20:0)

Z2401
IP5040CX11_LF

J2400
J2401

COL_4
COL_5
COL_6
COL_7

GND

ROW_4
ROW_5
ROW_6
ROW_7

X2400

S2415
C2410
27p
VOL-UP

S2416
C2411
27p
VOL-DOWN

S2417
C2412
27p
Shutter

GND

R2404
33R
VOL LED
C2408
27p
V2405
R2402
5.6V/15V/0.05J
NF
GND
Every EMC Component needs own GND via

R2405
33R
Shutter LED
C2409
27p
V2406
R2403
5.6V/15V/0.05J
NF
GND
Every EMC Component needs own GND via

BETTYIO(3:0)
GEN_CTRL_CMT(20:0)

D2400
74AUC2G08YZTR
8= VIO
4= GND

D2400
74AUC2G08YZTR
8= VIO
4= GND

ITU_EL_EN
SIDE_LEDS_EN

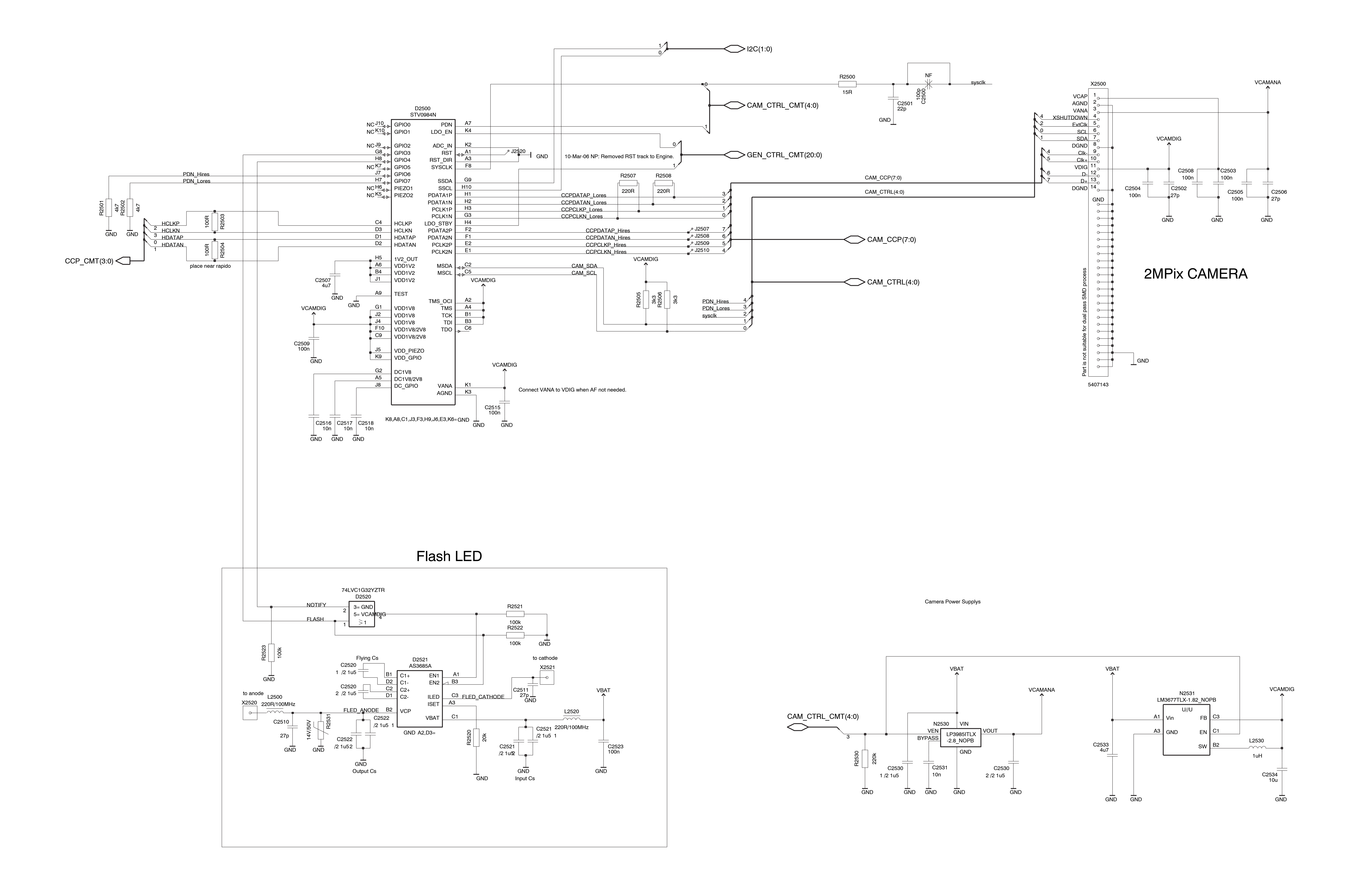
VBAT
C2413
1u0
GND

N2402
TPS75105YFFR
VIN
ENA
ENB
ISET
D1A
D2A
D1B
D2B
C2= GND

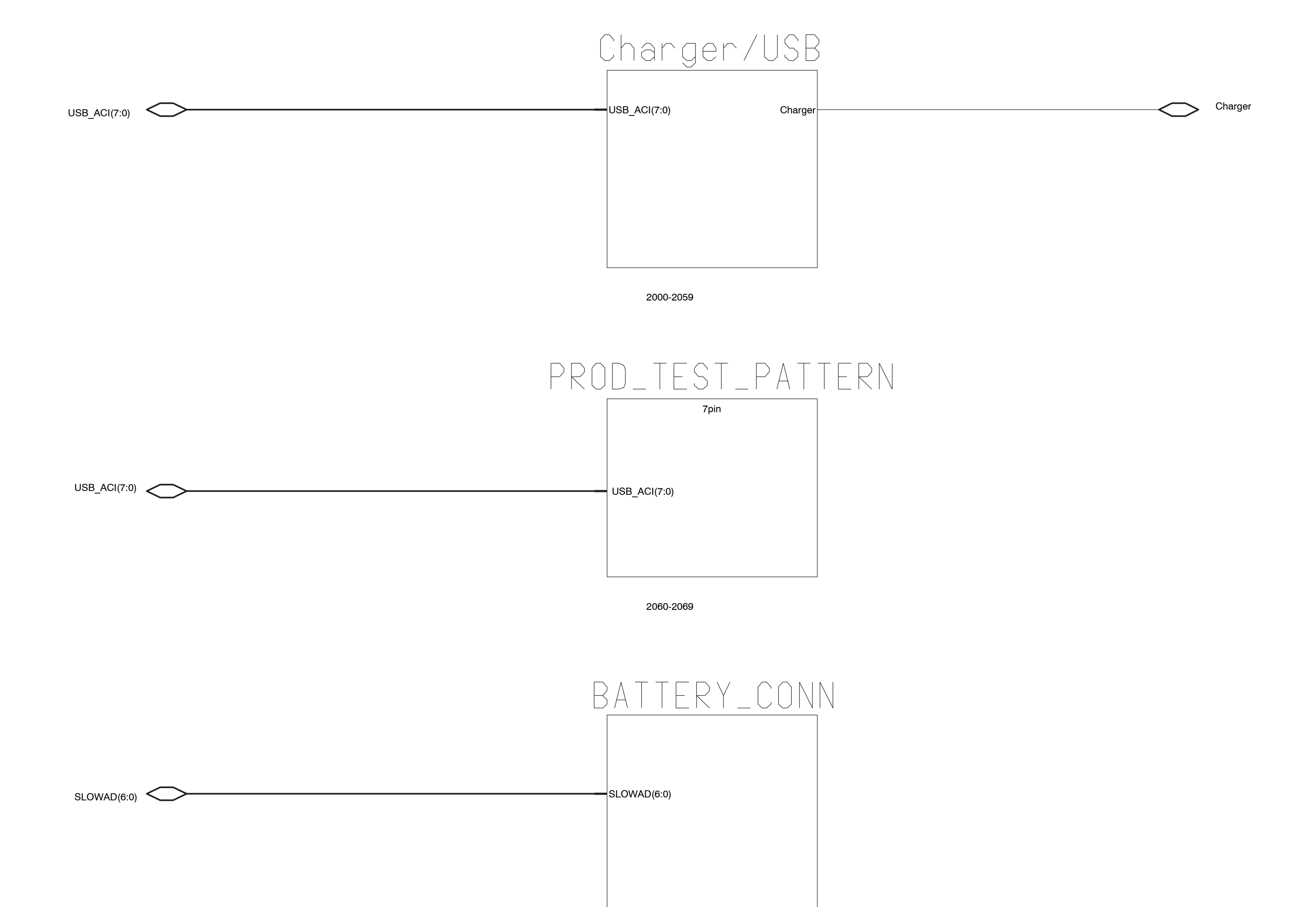
R2415
47k
GND
Iset apr. 10mA for each channel

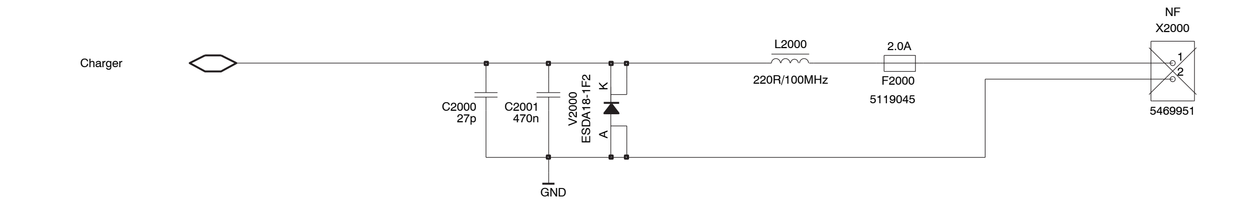
GND

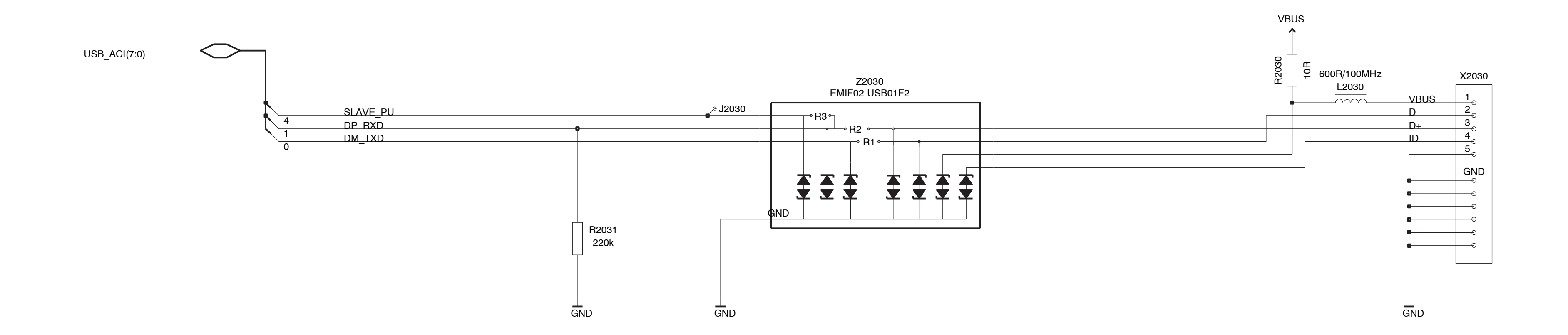
VIO
C2416
10n
GND

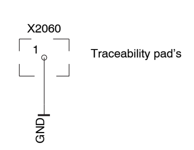


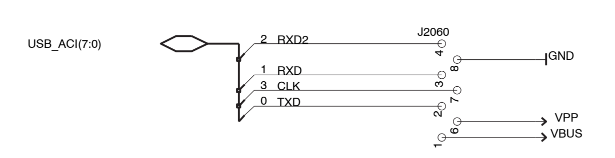
I2C(1:0)
CAM_CTRL_CMT(4:0)
GEN_CTRL_CMT(20:0)
CAM_CCP(7:0)
CAM_CTRL(4:0)
CCP_CMT(3:0)
D2500
STV0984N
R2500
15R
C2501
22p
C2500
100p
NF
sysclk
X2500
VCAMANA
VCAMDIG
VCAP
AGND
VANA
XSHUTDOWN
ExtClk
SCL
SDA
DGND
Clk-
Clk+
VDIG
D-
D+
DGND
GND
C2504
100n
C2502
27p
C2508
100n
C2503
100n
C2505
100n
C2506
27p
2MPix CAMERA
Part is not suitable for dual pass SMD process
5407143
10-Mar-06 NP: Removed RST track to Engine.
J2520
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
GPIO5
GPIO6
GPIO7
PIEZO1
PIEZO2
PDN
LDO_EN
ADC_IN
RST
RST_DIR
SYSCLK
SSDA
SSCL
PDATA1P
PDATA1N
PCLK1P
PCLK1N
LDO_STBY
PDATA2P
PDATA2N
PCLK2P
PCLK2N
HCLKP
HCLKN
HDATAP
HDATAN
1V2_OUT
VDD1V2
TEST
VDD1V8
VDD1V8/2V8
VDD_PIEZO
VDD_GPIO
DC1V8
DC1V8/2V8
DC_GPIO
MSDA
MSCL
TMS_OCI
TMS
TCK
TDI
TDO
VANA
AGND
PDN_Hires
PDN_Lores
R2501
4k7
R2502
4k7
R2503
100R
R2504
100R
place near rapido
R2507
220R
R2508
220R
CCPDATAP_Lores
CCPDATAN_Lores
CCPCLKP_Lores
CCPCLKN_Lores
CCPDATAP_Hires
CCPDATAN_Hires
CCPCLKP_Hires
CCPCLKN_Hires
J2507
J2508
J2509
J2510
CAM_SDA
CAM_SCL
R2505
3k3
R2506
3k3
C2507
4u7
C2509
100n
C2515
100n
C2516
10n
C2517
10n
C2518
10n
Connect VANA to VDIG when AF not needed.
K8,A8,C1,J3,F3,H9,J6,E3,K6=GND
Flash LED
74LVC1G32YZTR
D2520
NOTIFY
FLASH
3= GND
5= VCAMDIG
R2521
100k
R2522
100k
R2523
100k
D2521
AS3685A
Flying Cs
C2520
1 /2 1u5
2 /2 1u5
C1+
C1-
C2+
C2-
VCP
EN1
EN2
ILED
ISET
VBAT
GND A2,D3=
FLED_CATHODE
FLED_ANODE
to cathode
X2521
C2511
27p
to anode
X2520
L2500
220R/100MHz
C2510
27p
14V/50V
R2531
C2522
/2 1u5 1
/2 1u52
Output Cs
R2520
20k
C2521
/2 1u5 1
/2 1u52
Input Cs
L2520
220R/100MHz
VBAT
C2523
100n
Camera Power Supplys
CAM_CTRL_CMT(4:0)
R2530
220k
N2530
LP3985ITLX
-2.8_NOPB
VEN
BYPASS
VIN
VOUT
C2530
1 /2 1u5
2 /2 1u5
C2531
10n
N2531
LM3677TLX-1.82_NOPB
U//U
Vin
FB
EN
SW
C2533
4u7
L2530
1uH
C2534
10u

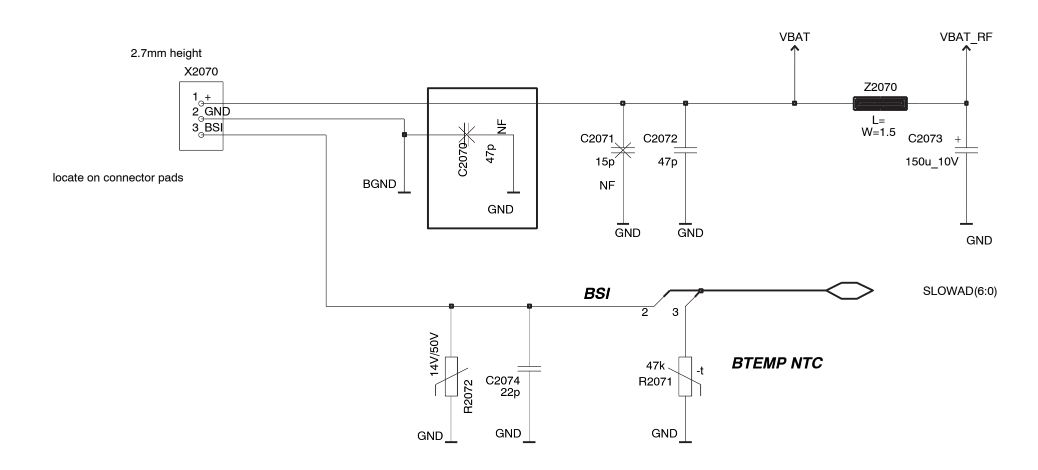

Charger/USB
USB_ACI(7:0)
USB_ACI(7:0)
Charger
Charger
2000-2059
PROD_TEST_PATTERN
7pin
USB_ACI(7:0)
USB_ACI(7:0)
2060-2069
BATTERY_CONN
SLOWAD(6:0)
SLOWAD(6:0)
2070-2099

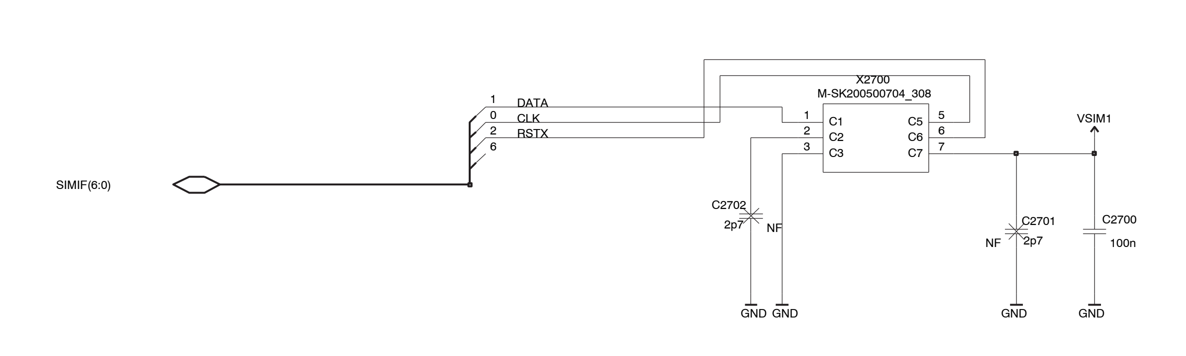

Charger
C2000
27p
C2001
470n
V2000
ESDA18-1F2
K
A
GND
L2000
220R/100MHz
2.0A
F2000
5119045
NF
X2000
1
2
5469951


USB_ACI(7:0)
SLAVE_PU
4
DP_RXD
1
DM_TXD
0
J2030
R2031
220k
GND
GND
Z2030
EMIF02-USB01F2
R3
R2
R1
GND
VBUS
R2030
10R
600R/100MHz
L2030
X2030
VBUS
D-
D+
ID
1
2
3
4
5
GND
GND

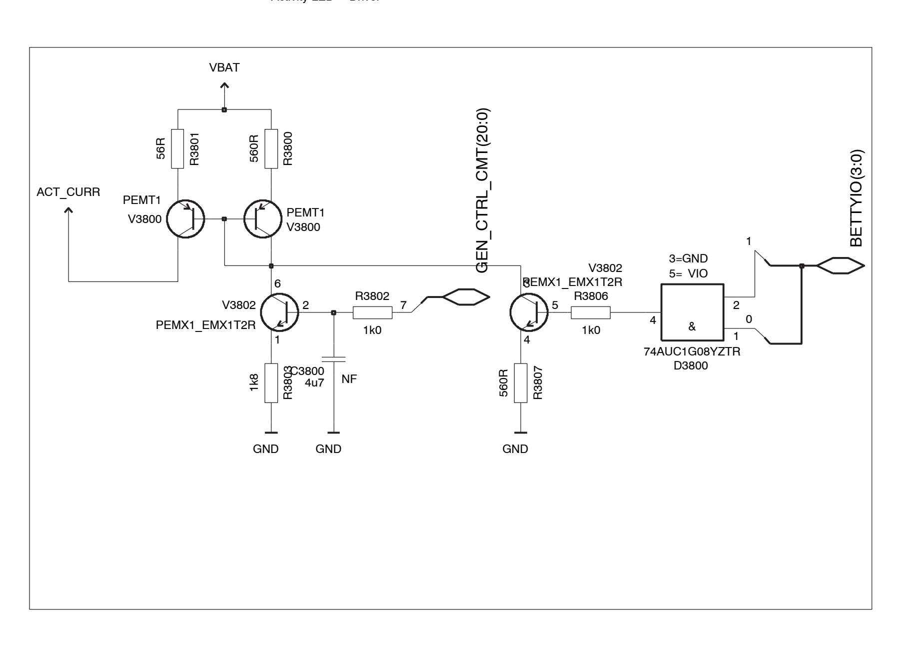

X2060
1
Traceability pad's
GND


USB_ACI(7:0)
J2060
2 RXD2
1 RXD
3 CLK
0 TXD
GND
VPP
VBUS

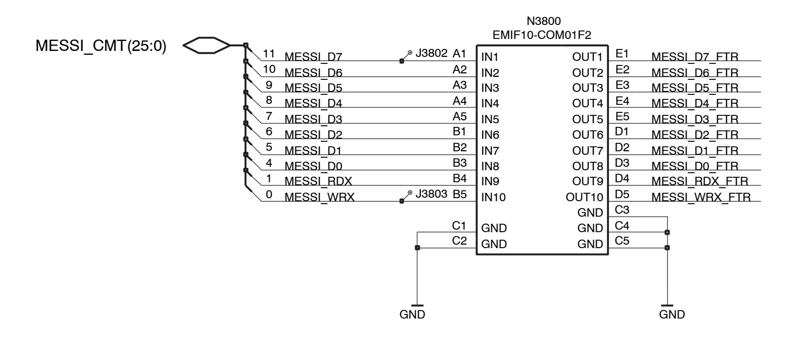

2.7mm height
X2070
1 +
2 GND
3 BSI
locate on connector pads
BGND
C2070
47p
NF
GND
C2071
15p
NF
GND
C2072
47p
GND
VBAT
Z2070
L=
W=1.5
VBAT_RF
C2073
150u_10V
GND
BSI
2
3
SLOWAD(6:0)
14V/50V
R2072
GND
C2074
22p
GND
47k
R2071
-t
GND
BTEMP NTC



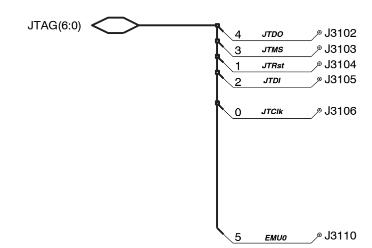
SIMIF(6:0)
1
0
2
6
DATA
CLK
RSTX
X2700
M-SK200500704_308
1
2
3
C1
C2
C3
C5
C6
C7
5
6
7
VSIM1
C2702
2p7
NF
C2701
NF
2p7
C2700
100n
GND
GND
GND
GND

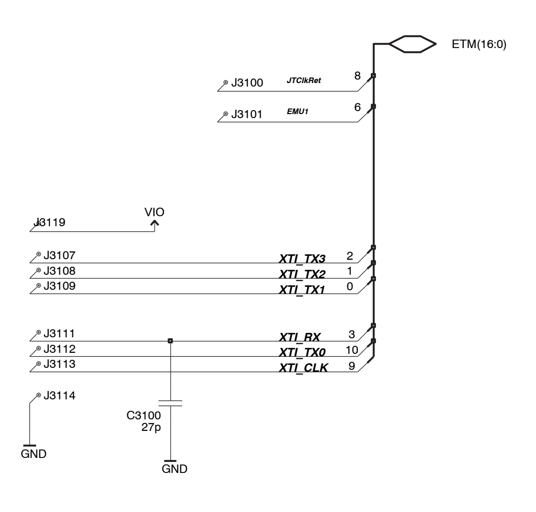


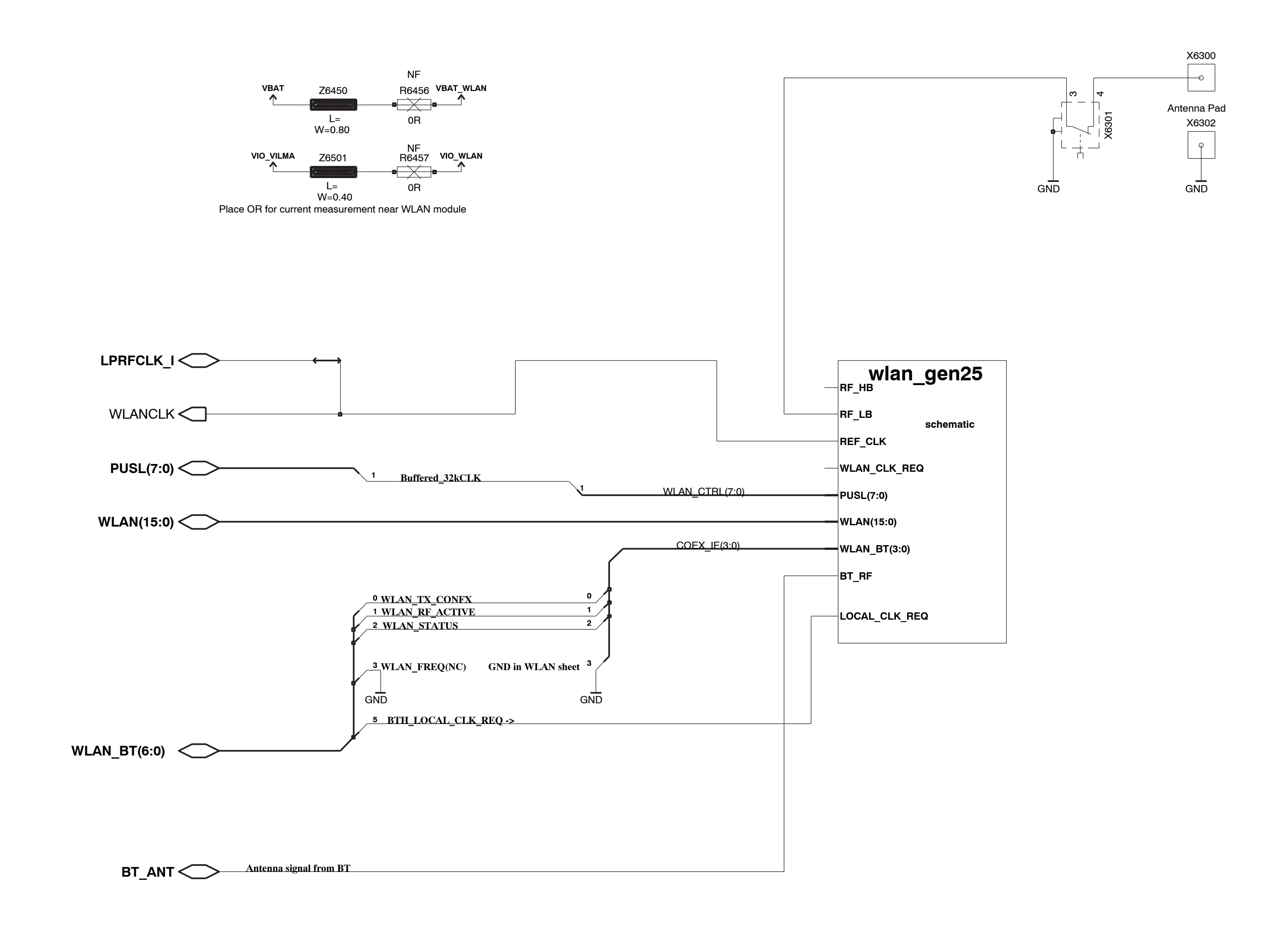
Activity LED Driver
VBAT
ACT_CURR
GEN_CTRL_CMT(20:0)
BETTYIO(3:0)
74AUC1G08YZTR
D3800

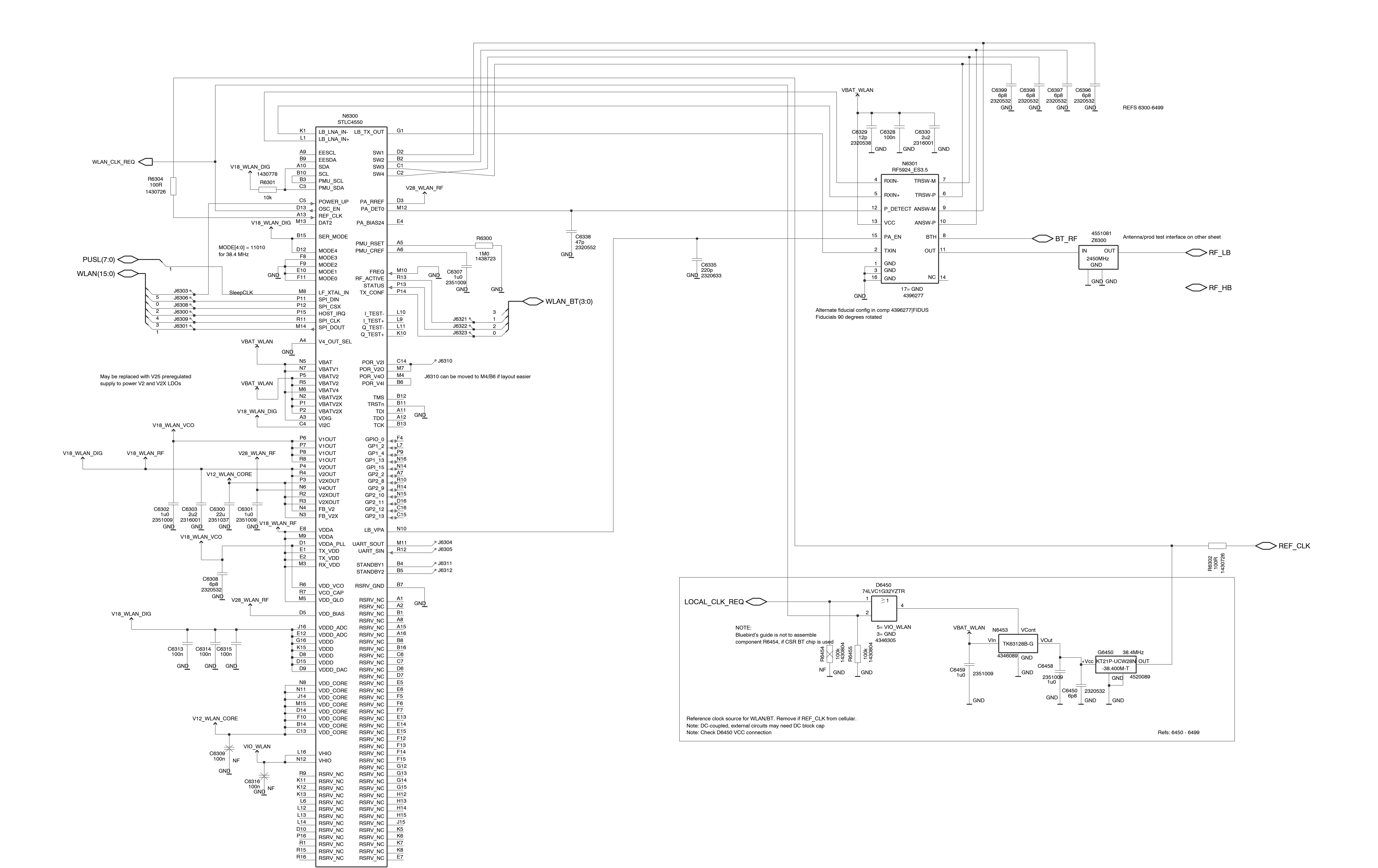


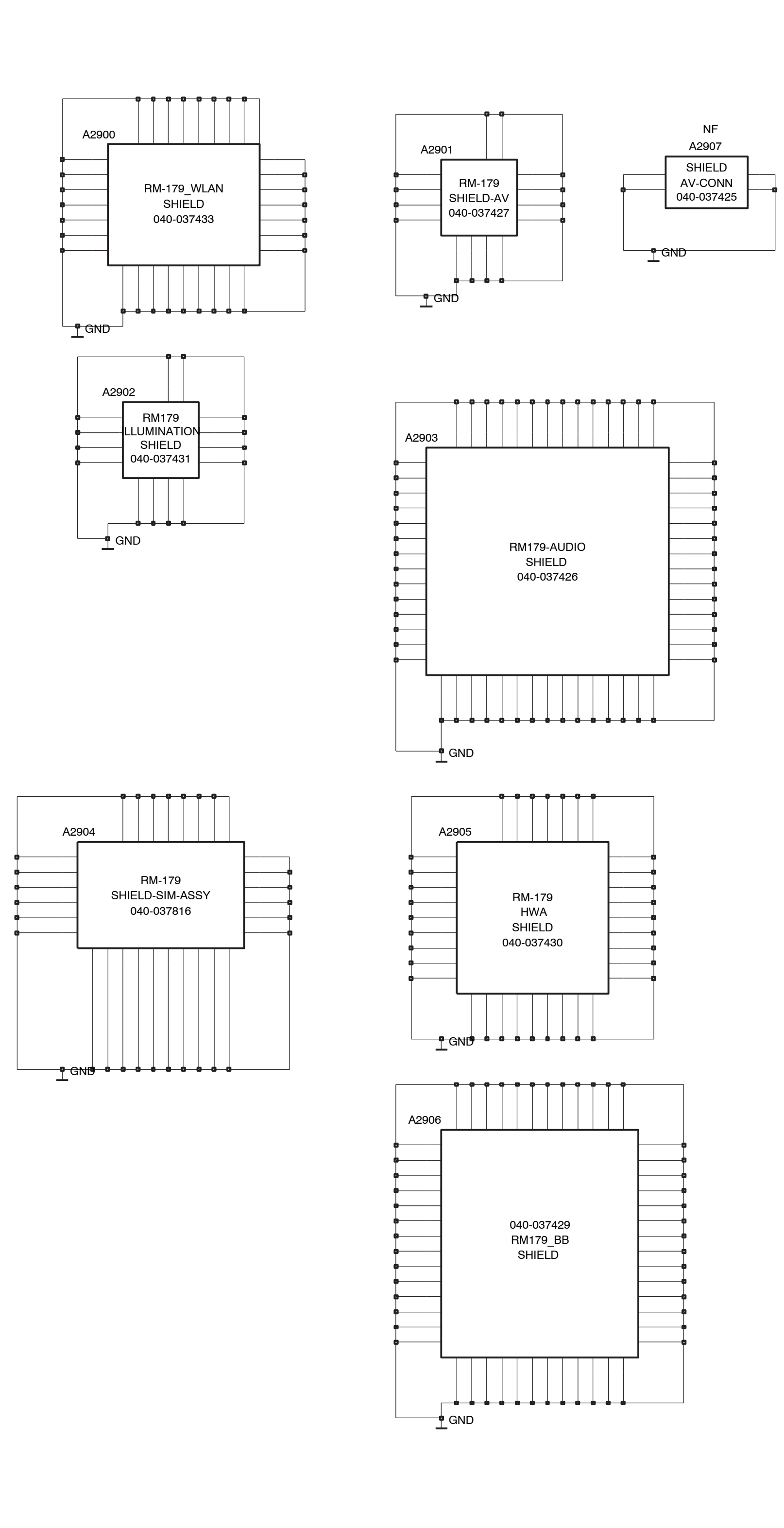
MESSI_CMT(25:0)
N3800
EMIF10-COM01F2
GND


JTAG(6:0)
4 JTDO J3102
3 JTMS J3103
1 JTRst J3104
2 JTDI J3105
0 JTClk J3106
5 EMU0 J3110

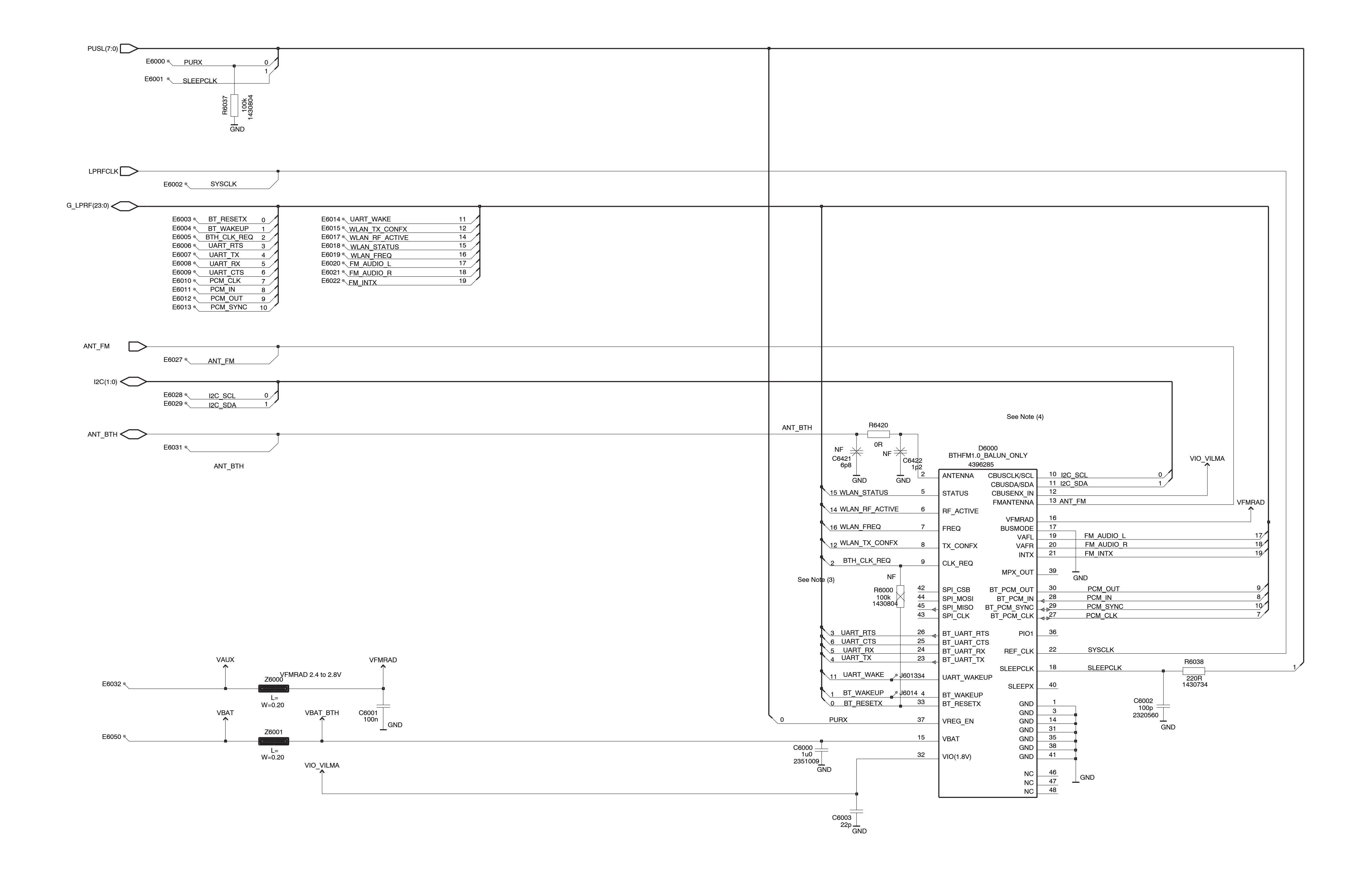

ETM(16:0)
J3100 JTClkRet 8
J3101 EMU1 6
J3119
VIO
J3107 XTI_TX3 2
J3108 XTI_TX2 1
J3109 XTI_TX1 0
J3111 XTI_RX 3
J3112 XTI_TX0 10
J3113 XTI_CLK 9
J3114
C3100
27p
GND
GND


VBAT
Z6450
L=
W=0.80
NF
R6456
0R
VBAT_WLAN
VIO_VILMA
Z6501
L=
W=0.40
NF
R6457
0R
VIO_WLAN
Place OR for current measurement near WLAN module
X6300
Antenna Pad
X6302
X6301
GND
GND
LPRFCLK_I
WLANCLK
PUSL(7:0)
Buffered_32kCLK
WLAN_CTRL(7:0)
WLAN(15:0)
COEX_IF(3:0)
WLAN_TX_CONFX
WLAN_RF_ACTIVE
WLAN_STATUS
WLAN_FREQ(NC)
GND in WLAN sheet
GND
GND
BTH_LOCAL_CLK_REQ ->
WLAN_BT(6:0)
BT_ANT
Antenna signal from BT
wlan_gen25
schematic
RF_HB
RF_LB
REF_CLK
WLAN_CLK_REQ
PUSL(7:0)
WLAN(15:0)
WLAN_BT(3:0)
BT_RF
LOCAL_CLK_REQ

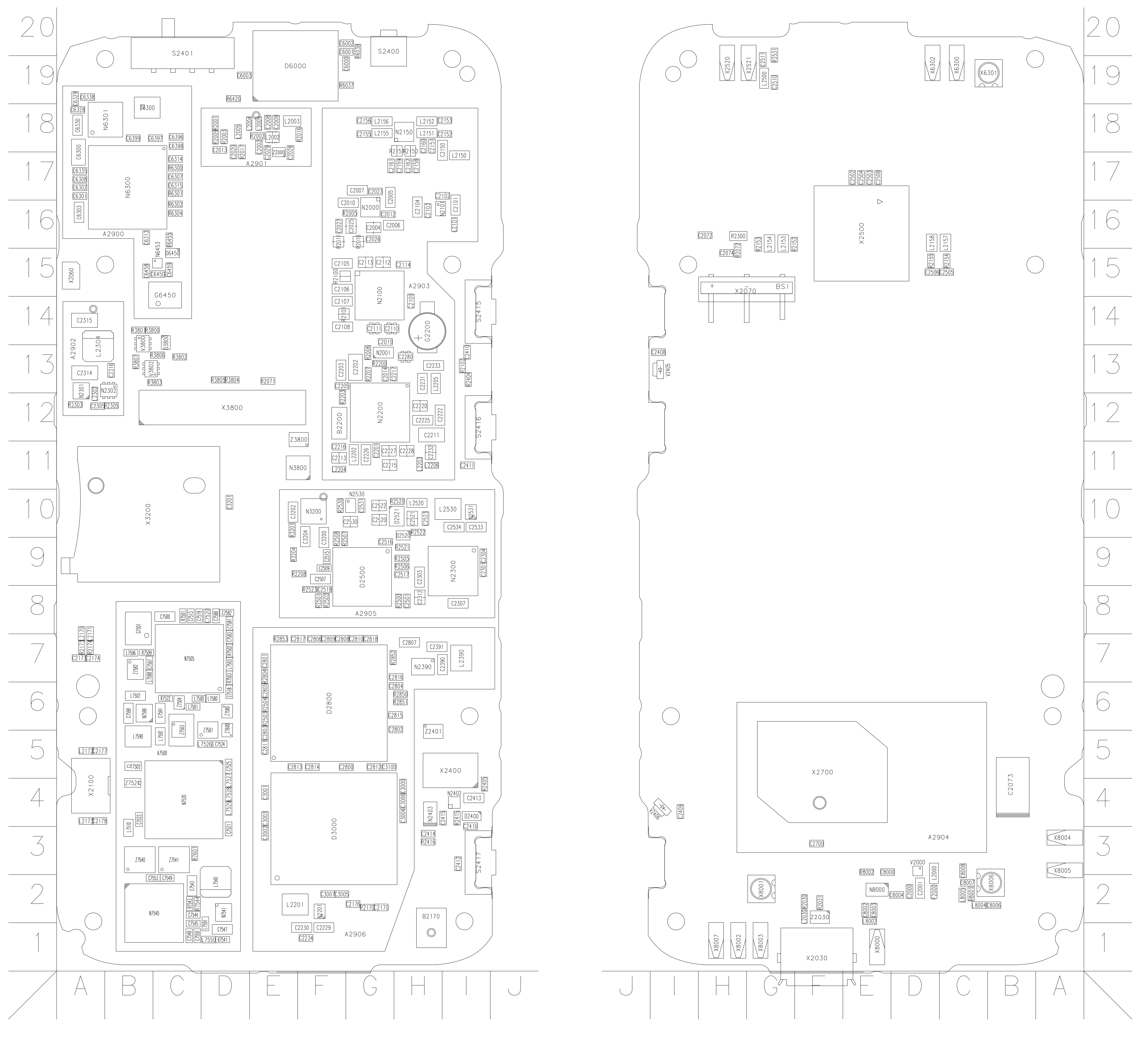

N6300
STLC4550
N6301
RF5924_ES3.5
WLAN_CLK_REQ
PUSL(7:0)
WLAN(15:0)
WLAN_BT(3:0)
BT_RF
RF_LB
RF_HB
REF_CLK
LOCAL_CLK_REQ
VBAT_WLAN
V18_WLAN_DIG
V28_WLAN_RF
V18_WLAN_VCO
V18_WLAN_RF
V12_WLAN_CORE
VIO_WLAN
MODE[4:0] = 11010
for 38.4 MHz
May be replaced with V25 preregulated
supply to power V2 and V2X LDOs
J6310 can be moved to M4/B6 if layout easier
Antenna/prod test interface on other sheet
Alternate fiducial config in comp 4396277|FIDUS
Fiducials 90 degrees rotated
REFS 6300-6499
GND PINS= GND
4396287
17= GND
4396277
D6450
74LVC1G32YZTR
5= VIO_WLAN
3= GND
4346305
N6453
TK63128B-G
4346089
G6450
KT21P-UCW28N
-38.400M-T
38.4MHz
4520089
NOTE:
Bluebird's guide is not to assemble
component R6454, if CSR BT chip is used
Reference clock source for WLAN/BT. Remove if REF_CLK from cellular.
Note: DC-coupled, external circuits may need DC block cap
Note: Check D6450 VCC connection
Refs: 6450 - 6499



A2900
RM-179_WLAN
SHIELD
040-037433
GND
A2901
RM-179
SHIELD-AV
040-037427
GND
NF
A2907
SHIELD
AV-CONN
040-037425
GND
A2902
RM179
ILLUMINATION
SHIELD
040-037431
GND
A2903
RM179-AUDIO
SHIELD
040-037426
GND
A2904
RM-179
SHIELD-SIM-ASSY
040-037816
GND
A2905
RM-179
HWA
SHIELD
040-037430
GND
A2906
040-037429
RM179_BB
SHIELD
GND

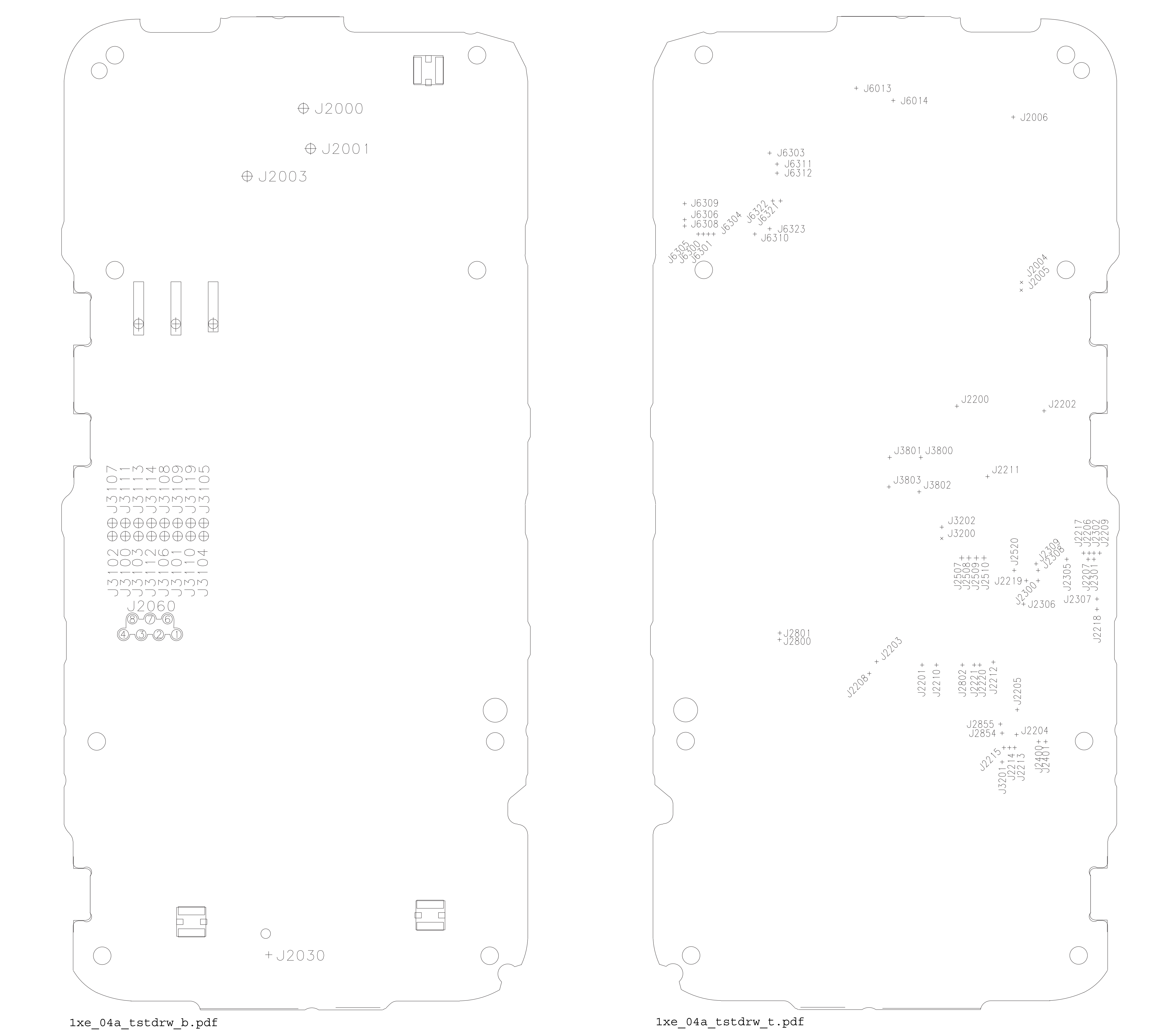


PUSL(7:0)
E6000 PURX 0
E6001 SLEEPCLK 1
R6037 100k 1430804
GND
LPRFCLK
E6002 SYSCLK
G_LPRF(23:0)
E6003 BT_RESETX 0
E6004 BT_WAKEUP 1
E6005 BTH_CLK_REQ 2
E6006 UART_RTS 3
E6007 UART_TX 4
E6008 UART_RX 5
E6009 UART_CTS 6
E6010 PCM_CLK 7
E6011 PCM_IN 8
E6012 PCM_OUT 9
E6013 PCM_SYNC 10
E6014 UART_WAKE 11
E6015 WLAN_TX_CONFX 12
E6017 WLAN_RF_ACTIVE 14
E6018 WLAN_STATUS 15
E6019 WLAN_FREQ 16
E6020 FM_AUDIO_L 17
E6021 FM_AUDIO_R 18
E6022 FM_INTX 19
ANT_FM
E6027 ANT_FM
I2C(1:0)
E6028 I2C_SCL 0
E6029 I2C_SDA 1
ANT_BTH
E6031
ANT_BTH
See Note (4)
ANT_BTH
R6420 0R
NF C6421 6p8
NF C6422 1p2
GND
D6000
BTHFM1.0_BALUN_ONLY
4396285
ANTENNA
STATUS
RF_ACTIVE
FREQ
TX_CONFX
CLK_REQ
SPI_CSB
SPI_MOSI
SPI_MISO
SPI_CLK
BT_UART_RTS
BT_UART_CTS
BT_UART_RX
BT_UART_TX
UART_WAKEUP
BT_WAKEUP
BT_RESETX
VREG_EN
VBAT
VIO(1.8V)
CBUSCLK/SCL
CBUSDA/SDA
CBUSENX_IN
FMANTENNA
VFMRAD
BUSMODE
VAFL
VAFR
INTX
MPX_OUT
BT_PCM_OUT
BT_PCM_IN
BT_PCM_SYNC
BT_PCM_CLK
PIO1
REF_CLK
SLEEPCLK
SLEEPX
GND
NC
15 WLAN_STATUS 5
14 WLAN_RF_ACTIVE 6
16 WLAN_FREQ 7
12 WLAN_TX_CONFX 8
2 BTH_CLK_REQ 9
See Note (3)
NF
R6000 100k 1430804
42 44 45 43
3 UART_RTS 26
6 UART_CTS 25
5 UART_RX 24
4 UART_TX 23
11 UART_WAKE J601334
1 BT_WAKEUP J6014 4
0 BT_RESETX 33
0 PURX 37
15
32
10 I2C_SCL 0
11 I2C_SDA 1
12
13 ANT_FM
16
17
19 FM_AUDIO_L 17
20 FM_AUDIO_R 18
21 FM_INTX 19
39
30 PCM_OUT 9
28 PCM_IN 8
29 PCM_SYNC 10
27 PCM_CLK 7
36
22 SYSCLK
18 SLEEPCLK 1
40
1 3 14 31 35 38 41
46 47 48
VIO_VILMA
VFMRAD
R6038 220R 1430734
C6002 100p 2320560
GND
E6032
VAUX
Z6000 L= W=0.20
VFMRAD 2.4 to 2.8V
VFMRAD
C6001 100n
GND
E6050
VBAT
Z6001 L= W=0.20
VBAT_BTH
VIO_VILMA
C6000 1u0 2351009
GND
C6003 22p
GND



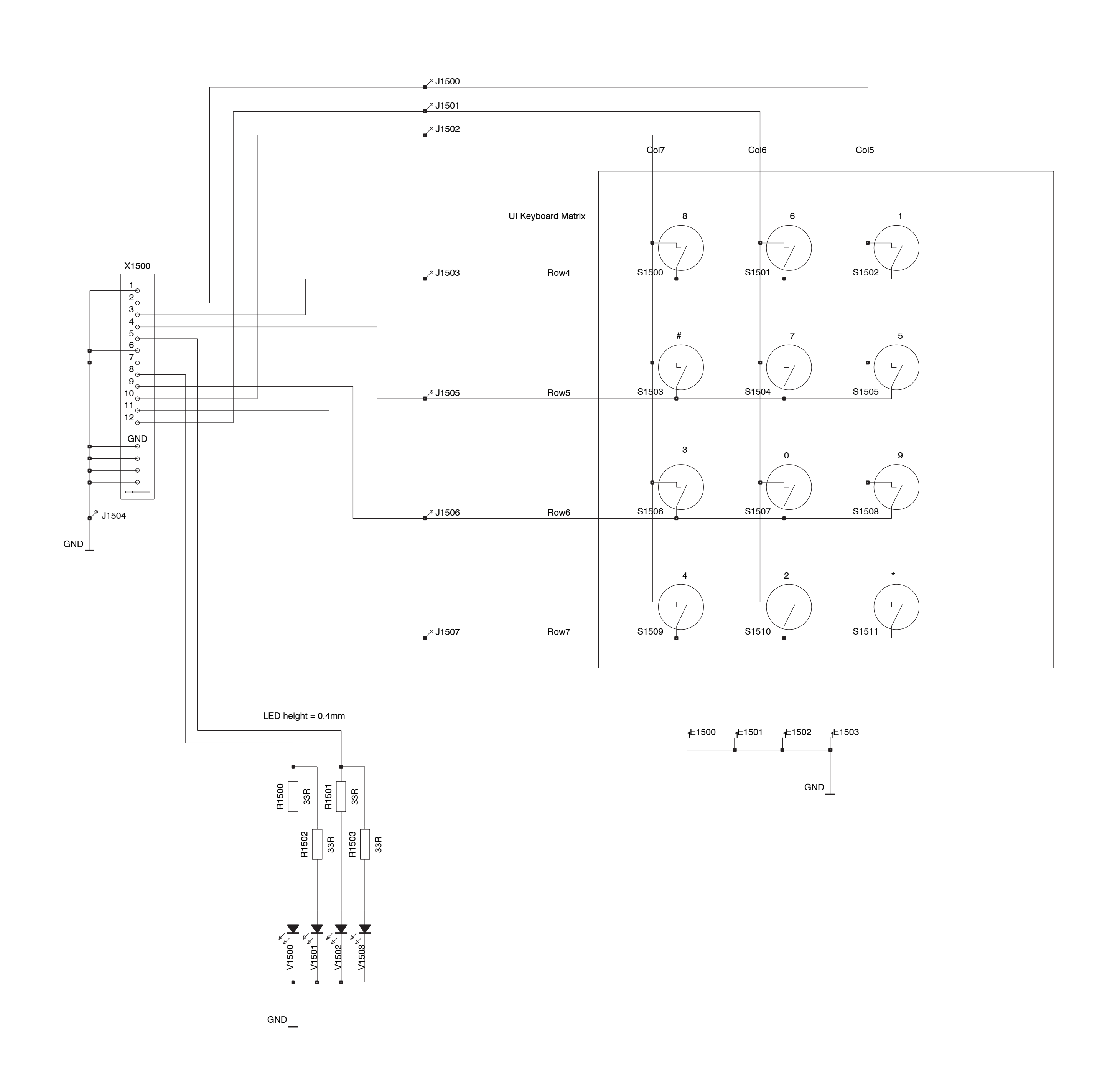
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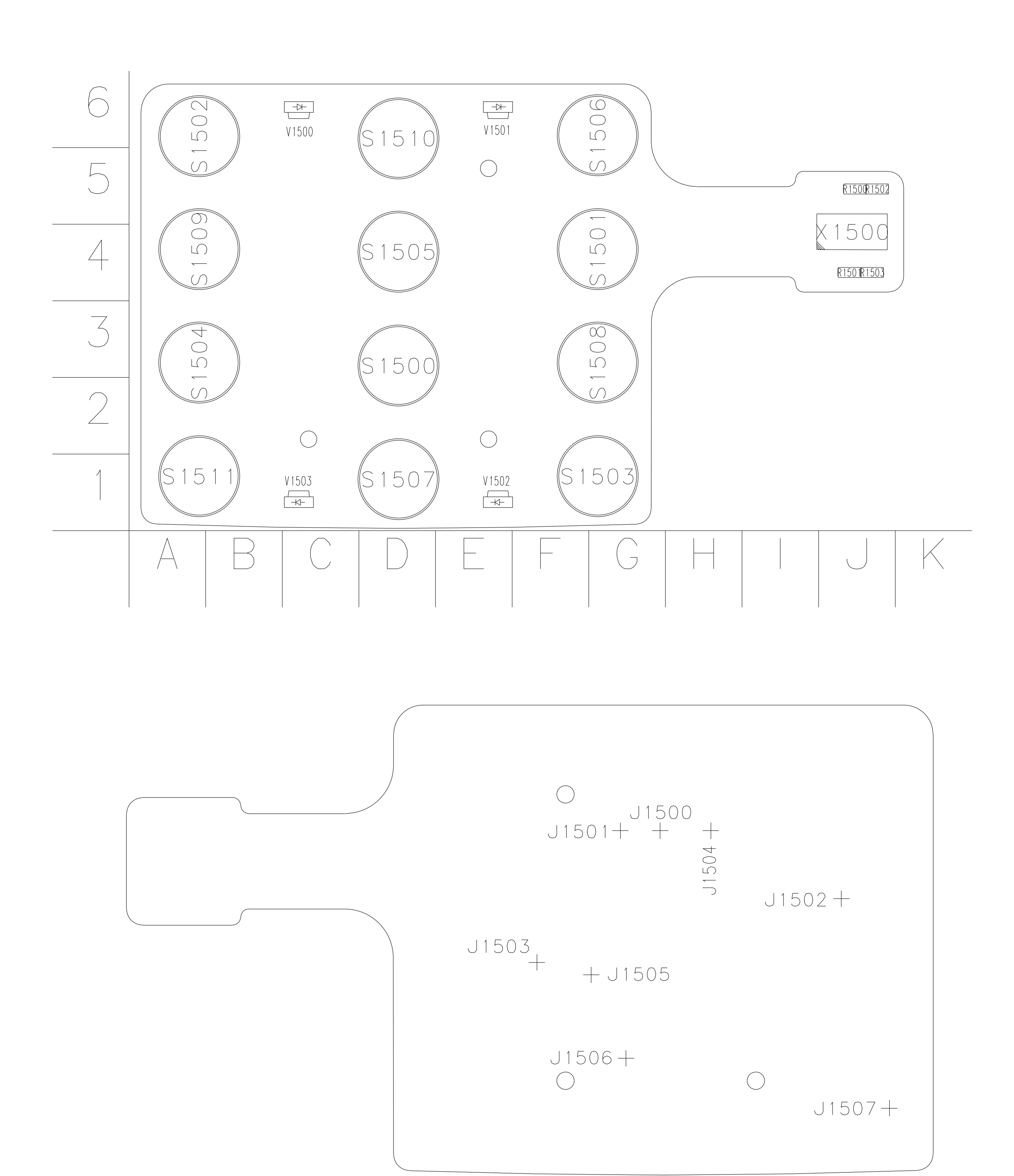
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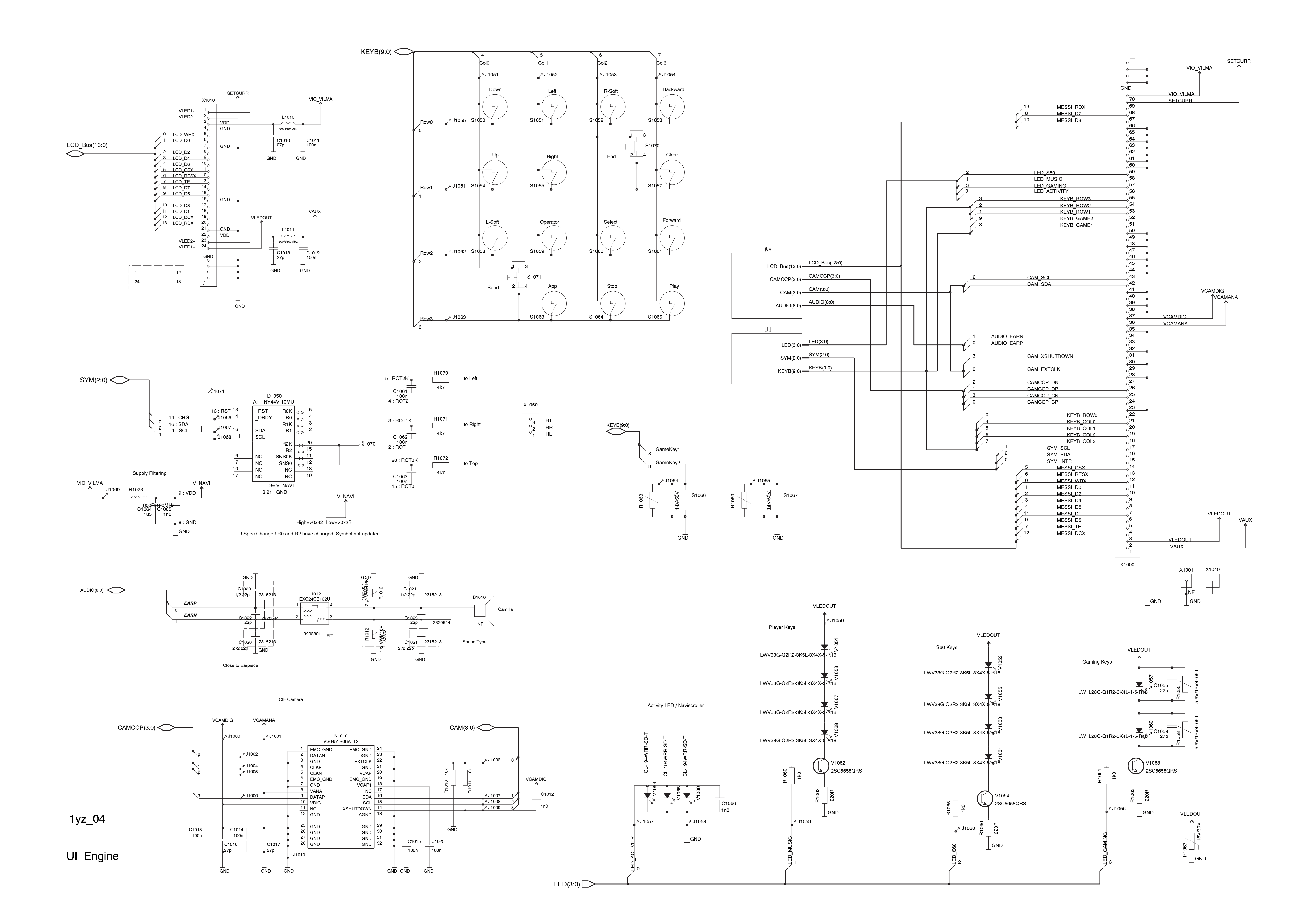
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1yk_04

ITU-keys



1yz_04
UI_Engine
KEYB(9:0)
LCD_Bus(13:0)
SYM(2:0)
AUDIO(8:0)
CAMCCP(3:0)
CAM(3:0)
LED(3:0)
Supply Filtering
CIF Camera
Activity LED / Naviscroller
Player Keys
S60 Keys
Gaming Keys
Close to Earpiece
Spring Type
High=>0x42 Low=>0x2B
! Spec Change ! R0 and R2 have changed. Symbol not updated.
D1050 ATTINY44V-10MU
N1010 VS6451R0BA_T2
X1000
X1010
X1050

24
23
22
21
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18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

X1040
S1067
V1063
S1066
N1010
X1000
X1010
S1056
S1053
S1061
S1052
V1052
V1053
V1067
V1055
S1071
V1065
X1050
V1054
S1063
S1070
V1066
V1051
V1068
V1058
V1061
S1059
S1064
S1065
S1057
D1050
V1062
V1064

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A B C D E F G H I J K L

S1050
S1055
S1060
S1051
S1054

1yz_04a_asmdrw_b.pdf

L K J I H G F E D C B A